

**PHASE I
ENVIRONMENTAL SITE ASSESSMENT
for the
Escanaba Power Plant Property
located at**

**2000 Power Plant Road
ESCANABA, DELTA COUNTY,
MICHIGAN 49829**

Prepared For:

**Delta County Brownfield Redevelopment Authority
County Building
310 Ludington Street
Escanaba, Michigan 49829**

Prepared By:

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1.0 SUMMARY

Environmental Consulting & Technology (ECT) has conducted a Phase I Environmental Site Assessment (ESA) of the Escanaba Power Plant property located at 2000 Power Plant Drive in Escanaba, Delta County, Michigan 49829 (Subject Property).

The Subject Property consists of approximately 33.86 acres of land that includes the Escanaba Power Plant, a former asphalt plant, City of Escanaba storage buildings, undeveloped acreage, and a grading and sorting area for gravel and stone to be used for road construction activities. The Escanaba Power Plant and former asphalt plant are enclosed within one fence, and the City of Escanaba storage buildings are enclosed with a second fence. The western boundary of the Subject Property is Ore Terminal Access Road and the land west of the fence lines is undeveloped grass and tree-covered land.

The Escanaba Power Plant is improved with the main power plant building. Precipitators and their associated stacks are connected to and are located directly east of the main power plant building. A warehouse building and an office building are located directly south of the main power plant building. An electrical substation is located southwest of the main power plant building. A combustion turbine and associated transformers and an aboveground storage tank (AST) for combustion fuel storage and its associated containment berm are located south of the power plant footprint. An intake pump house and ash ponds are located east of the power plant footprint near the shore of Little Bay de Noc.

The former asphalt plant houses four small buildings and is located northeast of the Escanaba Power Plant. An AST is located immediately west of one of the buildings. Utility pole storage for the City of Escanaba is located in the northernmost portion of the enclosed Escanaba Power Plant and former asphalt plant properties fence line.

A fenced storage area for the City of Escanaba is located northwest of the Escanaba Power Plant. This storage area includes four storage buildings. The grading and sorting area for gravel and stone is located north of the fenced storage area.

Exterior grounds within the power plant footprint are paved. The remaining exterior grounds of the Subject Property are either gravel or covered with vegetation and grasses.

ECT has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-05. Any exceptions to, or deletions from, this practice are described in Section 11.0 of this report. No evidence of historical recognized environmental conditions (RECs) or *de minimis* conditions was identified during this Phase I ESA. This assessment has revealed the following current RECs associated with the Subject Property:

- Potential subsurface contamination related to the current and historical usage of the ash ponds in the eastern portion of the Subject Property.

Used cooling water is discharged to the ash ponds. Mr. Charles Detiege, Environmental Manager with UP Power Company (current operator of the Subject Property), stated that the used cooling water contains ash and metals and is discharged to the onsite ash ponds located east of the power plant footprint on the

Subject Property. Recently, oils have also been observed in the ash ponds. Mr. Detiege indicated that regulatory agencies have requested the UP Power Company to test soil and groundwater near the ash ponds.

- The historic presence of industrial operations at the Subject Property.

Based on a review of a 1929 Sanborn Fire Insurance Map, an asphalt plant was operating in the northeastern portion of the Subject Property as early as 1929. Information regarding the actual dates that the asphalt plant commenced and ceased operations was not available. An abandoned AST, placed on a concrete cradle, was observed west of the oldest building associated with the former asphalt plant. It appeared likely that this AST has not been used for many decades. No stained soil was observed in the vicinity of this AST; however, stressed vegetation was noted.

Some historical floor staining on the concrete floor was observed within the sheds associated with the former asphalt plant. No liquid storage was observed in these sheds at the time of the site reconnaissance. However, ECT observed unlabelled and abandoned dry chemicals stored within the sheds. Potential historical uses of these dry chemical materials may include fertilizers, herbicides, cement materials, and/or pool chemicals.

A review of a 1939 aerial photograph indicated that ore docks were apparent in the Little Bay de Noc immediately east of the Subject Property. These docks appeared to be connected to railroad lines that traversed the Subject Property in an east-west and northwest-southeast direction. These railroad lines appeared to converge at a point located further west of the Subject Property. The ore docks and railroad lines were not observed on the 1954 aerial photograph. Information regarding the actual dates that the ore docks and railroad lines were used was not available.

Based on a review of aerial photographs, the central portion of the Subject Property was improved with the Escanaba Power Plant between 1954 and 1964. The fenced storage area for the City of Escanaba, located northwest of the Escanaba Power Plant, was also improved with four storage buildings between 1954 and 1964. The grading and sorting area appeared to commence operations between 1954 and 1964 and is currently operating.

In addition, ECT noted an empty concrete AST cradle along the southern fence line of the Subject Property. No stained soil was observed in the vicinity of this AST cradle.

- The current presence of a combustion-fuel AST.

An AST associated with the combustion turbine area is located south of the power plant footprint. This AST is placed within an unlined earthen berm containment. Mr. Detiege indicated that regulatory agencies have requested the UP Power Company to add an impermeable liner material to the berm associated with the combustion-fuel AST. No stained soil or other evidence of releases were observed in the vicinity of this AST.

- The former presence of underground storage tanks (USTs) at the Subject Property.

According to the EDR-Radius Map report, two 3,000-gallon diesel USTs were installed at the Subject Property on March 27, 1975 and were removed on July 16, 1992. No releases were reported from these USTs. No additional information regarding these USTs is available.

In an effort to evaluate and determine the presence of potential environmental risks associated with the Subject Property, ECT recommends the completion of additional site assessment activities.

Other potential environmental concerns at the Subject Property include:

- The confirmed and potential presence of asbestos-containing materials (ACM) in building materials used in the onsite buildings.

Pearson Asbestos Abatement, Inc. conducted a Physical Assessment of Asbestos-Containing Building Materials, dated January 2005. Asbestos-containing pipe insulation, mud elbows, boiler insulation, and other thermal system insulation (TSI) materials were identified in the main power plant building. None of these materials were observed to be damaged. Other building materials in the main power plant building (e.g., roofing, flooring, ceiling, and mastic materials) and building materials in the remaining onsite buildings were not sampled. Based on the ages of the onsite buildings, the potential exists for building materials used in the onsite buildings to contain asbestos. ECT recommends that precautions are taken not to disturb ACM during any renovation and/or demolition activities within the main power plant building. ECT also recommends that a comprehensive ACM survey, including all suspect ACM, be conducted prior to performing renovation and/or demolition activities at the onsite buildings.

- The potential presence of lead/lead-based paint (LBP) within the onsite buildings.

Based on the ages of the onsite buildings, the potential exists for lead window glazing and/or LBP to be present. A lead/LBP survey was not completed as part of this Phase I ESA and no previously conducted lead/LBP survey was provided to ECT for review. ECT recommends that lead/LBP surveys be conducted prior to performing renovation and/or demolition activities at the Subject Property.

2.0 INTRODUCTION

ECT has conducted a Phase I ESA of the Subject Property. The Subject Property is located on the east side Ore Terminal Access Road between Power Plant Road and Nineteenth Avenue North at 2000 Power Plant Drive in Escanaba, Delta County, Michigan 49829. The Site Location Map is provided as **Figure 1**.

The Subject Property consists of approximately 33.86 acres of land that includes the Escanaba Power Plant, a former asphalt plant, City of Escanaba storage buildings, undeveloped acreage, and a grading and sorting area for gravel and stone to be used for road construction activities. The Escanaba Power Plant and former asphalt plant are enclosed

within one fence, and the City of Escanaba storage buildings are enclosed with a second fence. The western boundary of the Subject Property is Ore Terminal Access Road and the land west of the fence lines is undeveloped grass and tree-covered land.

The Escanaba Power Plant is improved with the main power plant building. Precipitators and their associated stacks are connected to and are located directly east of the main power plant building. A warehouse building and an office building are located directly south of the main power plant building. An electrical substation is located southwest of the main power plant building. A combustion turbine and associated transformers and an aboveground storage tank (AST) for combustion fuel storage and its associated containment berm are located south of the power plant footprint. An intake pump house and ash ponds are located east of the power plant footprint near the shore of Little Bay de Noc.

The former asphalt plant houses four small buildings and is located northeast of the Escanaba Power Plant. An AST is located immediately west of one of the buildings. Utility pole storage for the City of Escanaba is located in the northernmost portion of the enclosed Escanaba Power Plant and former asphalt plant properties fence line.

A fenced storage area for the City of Escanaba is located northwest of the Escanaba Power Plant. This storage area includes four storage buildings. The grading and sorting area for gravel and stone is located north of the fenced storage area.

Exterior grounds within the power plant footprint are paved. The remaining exterior grounds of the Subject Property are either gravel or covered with vegetation and grasses.

2.1 Purpose

The Delta County Brownfield Redevelopment Authority (BRA) requested that ECT conduct a Phase I ESA of the Subject Property. The objective of a Phase I ESA is to identify recognized environmental conditions (RECs) in connection with the property, to the extent feasible pursuant to the processes prescribed in the ASTM E 1527-05 guidelines. The term “*REC*” as defined by ASTM is the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or the material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

This Phase I ESA includes information gathered from federal, state, and local agencies; personal interviews with people familiar with the Subject Property and surrounding properties; and a site reconnaissance conducted by ECT representatives. The Phase I ESA is intended to meet the due diligence requirements of ASTM E-1527-05.

2.2 Detailed Scope of Services

The Phase I ESA conducted by ECT included, but was not limited to, the following services:

- A site reconnaissance of the Subject Property to look for evidence of the release(s) of hazardous materials and petroleum products and to assess the potential for onsite releases of hazardous materials and petroleum products;
- Drive-by observations of adjoining properties and the site vicinity;
- Interviews with people familiar with the Subject Property, as available;
- Review of regulatory agency file information;
- Review of historical documents, as available; and
- Preparation of a report presenting the Phase I ESA findings including a summary of conclusions and recommendations.

2.3 Significant Assumptions

The purpose of this Phase I ESA is to provide appropriate inquiry into the previous use of the Subject Property consistent with good commercial and customary practice in an effort to minimize liability. ECT assumes that the information provided by Delta County, the City of Escanaba (current owner of the Subject Property), the regulatory database electronic search report provider, and the regulatory agencies is true and reliable.

2.4 Limitations and Exceptions

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by ECT and the parties for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, expressed or implied, is intended or given. To the extent that ECT relied upon any information prepared by other parties not under contract to ECT, ECT makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

The findings presented in this report apply solely to site conditions existing at the time when ECT's assessment was performed. It must be recognized, however, that an environmental site assessment is intended for the purpose of determining the potential for contamination through limited research and investigative activities and in no way represents a conclusive or complete site characterization. Conditions in other parts of the project site may vary from

those at the locations where data were collected. ECT's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100 percent confidence in environmental site assessment conclusions cannot reasonably be achieved.

ECT, therefore, does not provide any guarantees, certifications, or warranties that a property is free from environmental contamination. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

2.5 Special Terms and Conditions

The scope of work for this Phase I ESA did not include testing of electrical equipment for the potential presence of polychlorinated biphenyls (PCBs) or the assessment of natural hazards such as naturally occurring asbestos or methane gas, assessment of the potential presence of radionuclides, or assessment of non-chemical hazards such as the potential for damage from earthquakes or floods. This Phase I ESA also did not include an extensive assessment of the environmental compliance status of the Subject Property or of the businesses operating onsite, or a health-based risk assessment.

2.6 User Reliance

This Phase I ESA was conducted for the use of, and reliance by the Delta County BRA and may be relied upon only by this party. No use of the information contained in this report by others is permissible without receiving prior written authorization to do so from ECT. ECT is not responsible for independent conclusions, opinions, or recommendations made by others or otherwise based on the findings presented in this report.

3.0 SITE DESCRIPTION

This section presents a general overview of the Subject Property, onsite improvements, and surrounding properties.

3.1 Location and Legal Description

The Subject Property is located on the east side Ore Terminal Access Road between Power Plant Road and Nineteenth Avenue North at 2000 Power Plant Drive in Escanaba, Delta County, Michigan 49829.

The Subject Property consists of approximately 33.86 acres of land that includes the Escanaba Power Plant, a former asphalt plant, City of Escanaba storage buildings, undeveloped acreage, a grading and sorting area for gravel and stone to be used for road construction activities, and undeveloped grass and tree-covered land. According to the City of Escanaba Assessing Department, the current owner of the Subject Property is the City of Escanaba. The Subject Property contains four parcels of land, but tax identification numbers and legal descriptions for these parcels were not readily available.

3.2 Site and Vicinity General Characteristics

A Site Location Map and a Site and Surrounding Properties Map are presented as **Figures 1** and **2**, respectively. The northern adjoining property across Power Plant Road is largely undeveloped land owned by the City of Escanaba. The Escanaba Coal and Dock Company is located immediately northeast of the former asphalt plant at the Subject Property. The C. Reiss Coal Company and a City of Escanaba-owned AST farm is located north of the Escanaba Coal and Dock Company. Vinette's Boat Works is located south of the Subject Property. A City of Escanaba-owned warehouse and storage yard is also located south of the Subject Property across Nineteenth Avenue North. The Little Bay de Noc is located east of the Subject Property and storage yards are located west of the Subject Property across Ore Terminal Access Road, railroad tracks and Sheridan Road.

3.3 Current Use of the Property

At the time of the site reconnaissance, the central portion of the Subject Property contained the operating Escanaba Power Plant.

The buildings at the former asphalt plant located northeast of the power plant were utilized as auxiliary storage for the City of Escanaba (e.g., insulation, window screens, and trash cans). The building with the adjoining AST was used to house tires.

City of Escanaba storage buildings were used to store parade equipment, furniture, tires, and other items used for city functions. Utility pole storage for the City of Escanaba is located between the former asphalt plant and the City of Escanaba storage buildings.

A grading and sorting area for gravel and stone to be used for road construction activities was located north of the City of Escanaba storage buildings. Materials are trucked onto the Subject Property for grading and sorting and leave the Subject Property via truck. Refueling operations are not conducted at the Subject Property.

3.4 Descriptions of Structures, Roads, and Other Improvements on the Site

3.4.1 General Description of Structures

The Subject Property includes the Escanaba Power Plant, a former asphalt plant, City of Escanaba storage buildings, undeveloped acreage, and a grading and sorting area for gravel and stone to be used for road construction activities. The Escanaba Power Plant and former asphalt plant are enclosed within one fence, and the City of Escanaba storage buildings are enclosed with a second fence. The western boundary of the Subject Property is Ore Terminal Access Road and the land west of the fence lines is undeveloped grass and tree-covered land. No structures are associated with the grading and sorting area.

The Escanaba Power Plant was improved with the main power plant building, an associated electrical substation located southwest of the main power plant building, and an intake pump house east of the power plant footprint near the shore of Little Bay de Noc between 1954 and 1964. Precipitators and their associated stacks connected to the east of the main power plant building, and the warehouse building and office building located directly south of the main

power plant building were apparent on the 1991 aerial photograph.. The combustion turbine and associated transformers and an aboveground storage tank (AST) for fuel storage and its associated containment berm, both located south of the power plant footprint, were reportedly constructed in 2000.

The former asphalt plant houses four small buildings and is located northeast of the Escanaba Power Plant. The building that has a western-adjointing AST was reportedly present as early as 1929. The other three buildings were constructed between 1939 and 1954.

A fenced storage area for the City of Escanaba is located northwest of the Escanaba Power Plant. This storage area includes four storage buildings that were constructed between 1954 and 1964.

With the exception of the oldest building on the former asphalt plant, all of the onsite buildings are of steel construction. The oldest building on the former asphalt plant is of brick construction. All of the buildings have concrete floors.

Pearson Asbestos Abatement, Inc. conducted a Physical Assessment of Asbestos-Containing Building Materials, dated January 2005. Asbestos-containing pipe insulation, mud elbows, boiler insulation, and other thermal system insulation (TSI) materials were identified in the main power plant building. None of these materials were observed to be damaged. Other building materials in the main power plant building (e.g., roofing, flooring, ceiling, and mastic materials) and building materials in the remaining onsite buildings were not sampled. Based on the ages of the onsite buildings, the potential exists for building materials used in the onsite buildings to contain asbestos.

Also, based on the ages of the onsite buildings, the potential exists for lead window glazing and/or lead-based paint (LBP) to be present. A lead/LBP survey was not completed as part of this Phase I ESA and no previously conducted lead/LBP survey was provided to ECT for review.

3.4.2 Roads

The Subject Property is accessible via Power Plant Road to the north and Ore Terminal Access Road to the west. Portions of the Subject Property are accessible via Nineteenth Avenue North to the south.

3.4.3 Potable Water Supply

The City of Escanaba provides potable water to the Subject Property. In addition, cooling water is drawn from the eastern adjoining Little Bay de Noc.

3.4.4 Sewage Disposal System

Domestic sewerage and wastewater were only generated at the buildings associated with the Escanaba Power Plant. Domestic sewerage is discharged to a septic system reportedly located west of the main power plant building. Wastewater is comprised of used cooling water, which is discharged to two ash ponds located east of the power plant footprint.

No floor drains were observed in the onsite buildings at the time of the site reconnaissance.

3.5 Current Uses of the Adjoining Properties

The northern adjoining property across Power Plant Road is largely undeveloped land owned by the City of Escanaba. The Escanaba Coal and Dock Company is located immediately northeast of the former asphalt plant at the Subject Property. The C. Reiss Coal Company and a City of Escanaba-owned AST farm is located north of the Escanaba Coal and Dock Company. Vinette's Boat Works is located south of the Subject Property. A City of Escanaba-owned warehouse and storage yard is also located south of the Subject Property across Nineteenth Avenue North. The Little Bay de Noc is located east of the Subject Property and storage yards are located west of the Subject Property across Ore Terminal Access Road, railroad tracks and Sheridan Road.

4.0 USER-PROVIDED INFORMATION

The Delta County BRA, the user of this Phase I ESA, directed ECT to interview Mr. Charles Detiege, Environmental Manager with UP Power Company (current operator of the Subject Property). This section identifies information provided by Mr. Detiege.

4.1 Title Records

According to the City of Escanaba Assessing Department, the City of Escanaba is the current owner of the Subject Property.

4.2 Environmental Liens or Activity and Use Limitations

Mr. Detiege was asked the following questions as part of the assessment:

- Are you aware of any environmental cleanup liens against the Subject Property that are filed or recorded under federal, tribal, state or local law?
- Are you aware of any activity or land use limitations, such as engineering controls, land use restrictions or institutional controls that are in place at the Subject Property and/or have been filed or recorded in a registry under federal, tribal, state or local law?

Mr. Detiege responded no to both questions.

4.3 Specialized Knowledge

Mr. Detiege was asked the following questions as part of the assessment:

- Do you have any specialized knowledge or experience related to the Subject Property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the Subject Property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

- Are you aware of commonly known or reasonably ascertainable information about the Subject Property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user,
 - a) Do you know the past uses of the Subject Property?
 - b) Do you know of specific chemicals that are present or once were present at the Subject Property?
 - c) Do you know of spills or other chemical releases that have taken place at the Subject Property?
 - d) Do you know of any environmental cleanups that have taken place at the Subject Property?

To the best of the knowledge of Mr. Detiege, he was not aware of any other chemical storage or use onsite than those already documented within the appropriate sections of this report.

Mr. Detiege was also asked the following questions as part of the assessment:

- Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the Subject Property?
- Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the Subject Property?
- Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?

Mr. Detiege indicated that regulatory agencies have requested the UP Power Company to test soil and groundwater near the ash ponds and to add an impermeable liner material to the berm associated with the combustion-fuel AST.

4.4 Commonly Known or Reasonably Ascertainable Information

Mr. Detiege was asked the following question as part of the assessment:

- Based on your knowledge and experience related to the Subject Property, are there any obvious indicators that point to the presence or likely presence of contamination at the Subject Property?

Mr. Detiege stated that the used cooling water contains ash and metals and is discharged to the onsite ash pond located east of the power plant footprint on the Subject Property. Recently, oils have also been observed in the ash pond. Mr. Detiege was unaware of other obvious indicators that point to the presence or likely presence of contamination at the Subject Property.

4.5 Valuation Reduction for Environmental Issues

Mr. Detiege was asked whether the purchase price for the Subject Property reasonably reflects the fair market value of the Subject Property. No purchasing price information was provided by Mr. Detiege.

4.6 Owner, Property Manager, and Occupant Information

Mr. Detiege was the site contact identified to ECT.

4.7 Reason for Performing Phase I

The reason for performing the Phase I ESA is to assess the presence/absence of RECs in anticipation of acquiring the Subject Property.

4.8 Other

No other information was provided.

5.0 RECORDS REVIEW

The following section presents the results of a review of readily ascertainable federal and state regulatory agency files obtained through an electronic search of the records and a historical records review, including aerial photographs, topographic maps, Sanborn fire insurance maps, and city directories pertaining to the Subject Property, adjoining properties, and proximate properties.

5.1 Standard Environmental Record Sources

Regulatory agency database information was obtained from Environmental Data Resources, Inc. (EDR), which maps and lists properties in federal and state environmental databases with existing conditions or status that may have the potential to affect the Subject Property. The EDR-Radius Map report is provided as **Appendix A**.

5.1.1 Federal Environmental Record Sources

The following federal databases were reviewed in accordance with the ASTM E 1527-05 requirements:

5.1.1.1 *National Priorities List (NPL; 1.0 mile)*

The National Priorities List (NPL) is a subset of the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and identifies over 1,200 sites for priority cleanup under the Superfund program. An NPL site must meet or surpass a predetermined hazard ranking system score, be chosen as a state's top priority site, or meet three specific criteria set jointly by the U.S. Department of Health and Human Services and the U.S. Environmental Protection Agency (EPA). Source: U.S. EPA.

The Subject Property is not listed in the NPL database. No listed NPL properties are located within 1.0 mile of the Subject Property.

5.1.1.2 Delisted NPL Site List (NPL; 1.0 mile)

The Delisted NPL Site List includes properties that have been delisted from the NPL.

The Subject Property is not listed in the Delisted NPL Site database. No delisted NPL properties are located within 1.0 mile of the Subject Property.

5.1.1.3 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS; 0.50 mile)

The CERCLIS database contains data on potentially hazardous waste sites that have been reported to EPA by states, municipalities, private companies, and private persons pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The CERCLIS list includes sites that are either proposed for the NPL or in the screening and assessment phase for possible inclusion on the NPL. Source: U.S. EPA/National Technical Information Service (NTIS).

The Subject Property is not listed in the CERCLIS database. No CERCLIS properties are located within 0.50 mile of the Subject Property.

5.1.1.4 CERCLIS-No Further Remedial Action Planned (CERCLIS-NFRAP; 0.50 mile)

The CERCLIS-NFRAP database contains data on sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require federal Superfund action or NPL consideration. Source: U.S. EPA/National Technical Information Service (NTIS).

The Subject Property is not listed in the CERCLIS-NFRAP database. No listed CERCLIS-NFRAP properties are located within 0.50 mile of the Subject Property.

5.1.1.5 Corrective Action Report (CORRACTS; 1.0 mile)

The CORRACTS database identifies hazardous waste handlers with Resource Conservation and Recovery Act (RCRA) corrective action activity. Source: U.S. EPA.

The Subject Property is not listed in the CORRACTS database. No listed CORRACTS properties are located within 1.0 mile of the Subject Property.

5.1.1.6 Resource Conservation and Recovery Act (RCRA) Treatment, Storage, and Disposal (TSD) Facilities (0.50 mile)

The RCRA TSD Facilities database includes selected information on properties that generate, transport, store, treat and/or dispose of hazardous waste, as defined by RCRA.

The Subject Property is not listed in the RCRA TSD database. No listed RCRA TSD properties are located within 0.50 mile of the Subject Property.

5.1.1.7 RCRA Generators Lists (Site and Adjoining Properties)

Resource Conservation and Recovery Information System (RCRIS) large-quantity generators (LQG) are those properties that generate at least 1,000 kilograms per month (kg/month) of non-acutely hazardous waste or meet other applicable RCRA requirements. RCRIS small-quantity generators (SQG) generate between 100 and 1,000 kg/month of non-acutely hazardous waste or meet other applicable RCRA requirements. RCRIS conditionally exempt SQG generate less than 100 kg/month of non-acutely hazardous waste or meet other applicable RCRA requirements. RCRIS-Non Generators are registered hazardous waste generators that do not presently generate hazardous waste.

The Subject Property is not listed in the RCRIS database. Three RCRIS properties are listed within 0.25 mile of the Subject Property.

Mead Woodlands Truck Garage, located between 0.125 and 0.25 mile west of the Subject Property at 1800 20th Avenue North. The Mead Woodlands Truck Garage property was listed as a conditionally exempt SQG. According to the EDR Radius Map report, no Resource Conservation and Recovery Act (RCRA) violations have been cited against this property.

City of Escanaba, located between 0.125 and 0.25 mile west of the Subject Property at 1715 Sheridan Road. The City of Escanaba property was listed as a conditionally exempt SQG. According to the EDR Radius Map report, no RCRA violations were cited against this property.

H J Manufacturing, Inc., located between 0.125 and 0.25 mile south of the Subject Property at 3707 19th Avenue North. The H J Manufacturing, Inc. property was listed as a RCRIS-Non Generator. According to the EDR Radius Map report, no RCRA violations were cited against this property.

5.1.1.8 Federal Institutional Control/Engineering Control Registries (Site only)

Federal institutional control and engineering control registries were requested in the database search. The Subject Property is not identified on either registry.

5.1.1.9 Emergency Response Notification System (ERNS; Site Only)

ERNS is a national database that records and stores information on reported releases of oil and hazardous substances. The database contains information on spill reports made to federal authorities including the U.S. EPA, U.S. Coast Guard, National Response Center, and Department of Transportation.

The Subject Property is not listed on the ERNS database.

5.1.2 State Environmental Record Sources

The following state databases were reviewed in accordance with the ASTM E 1527-05 requirements:

5.1.2.1 State-Equivalent CERCLIS Hazardous Waste Sites (SHWS/State Sites; 1.0 mile)

The State Hazardous Waste Site database lists potential or confirmed hazardous substance release properties.

The Subject Property is not listed in the SHWS database. One property is listed on the SHWS database within 1.0 mile of the Subject Property.

Escanaba Schools Bus Garage No. 2, located between 0.50 and 1.0 mile west of the Subject Property at 2220 20th Avenue. Because this property is located relatively far from the Subject Property, ECT believes that the potential for subsurface conditions at this property to pose an environmental risk to the subsurface conditions at the Subject Property is minimal.

5.1.2.2 State-Equivalent SWF/LF, State Landfill (SWIS; 0.50 mile)

This database is an inventory of solid waste disposal sites or landfills. These may be active or inactive sites or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

The Subject Property is not listed in the landfill and solid waste sites databases. No landfill or solid waste sites are listed within 0.50 mile of the Subject Property.

5.1.2.3 State Leaking Underground Storage Tank Database (LUST; 0.50 mile)

The LUST database is a list of reported leaking UST incidents.

The Subject Property is not listed in the LUST database. No LUST sites are listed within 0.50 mile of the Subject Property.

5.1.2.4 State Registered Underground Storage Tank (UST; Site and Adjoining Properties)

This database contains listings for current UST sites.

The Subject Property is identified in the UST database. According to the EDR-Radius Map report, two 3,000-gallon diesel USTs were installed at the Subject Property on March 27, 1975 and were removed on July 16, 1992. No releases were reported from these USTs. No additional information regarding these USTs was available.

One UST property is listed within 0.25 mile of the Subject Property.

Fueling Station, located between 0.125 and 0.25 mile west-southwest of the Subject Property at 1711 Sheridan Road. According to the EDR-Radius Map report, two 10,000-gallon fuel USTs (one gasoline and one diesel) were installed at this property on December 1, 1991 and are currently in use. These USTs are constructed of double-walled fiberglass-reinforced plastic and are equipped with leak detection systems. No releases have been detected from these USTs. Therefore, ECT believes that the potential for subsurface conditions at this property to pose an environmental risk to the subsurface conditions at the Subject Property is minimal.

5.1.2.5 State Institutional Control/Engineering Control Registries (Site Only)

This database contains registry entries for institutional and engineering controls.

The Subject Property is not listed in this database. No properties are listed in this database within 0.50 mile of the Subject Property.

5.1.2.6 State Voluntary Cleanup Sites (0.50 mile)

This database contains listings for current voluntary cleanup sites.

The Subject Property is not listed in this database. No properties are listed in this database within 0.50 mile of the Subject Property.

5.1.2.7 State and Tribal Brownfield Sites (0.50 mile)

This database contains listings for current Brownfield sites.

The Subject Property is not listed in this database. No properties are listed in this database within 0.50 mile of the Subject Property.

5.1.2.8 State Baseline Environmental Site Assessment Site (0.50-mile)

In Michigan, a property in which subsurface contamination is detected at concentrations that exceed applicable residential criteria is defined as a “facility.” Potential buyers of facilities can file baseline environmental assessments (BEAs) for the said facilities to document known subsurface conditions at these properties at the time of purchase and limit future cleanup liabilities. This database contains listings for properties for which BEAs have been filed with the MDEQ.

The Subject Property is not listed in this database. One property is listed in this database within 0.50 mile of the Subject Property.

Ore Dock, located between 0.25 and 0.50 mile south-southwest of the Subject Property at 1600 Sheridan Road. According to the EDR Radius Map report, a BEA was submitted to the MDEQ for this property on September 23, 2003.

5.1.2.9 Drycleaner Sites (0.25 mile)

This database contains listings for drycleaner sites.

The Subject Property is not listed in this database. No properties are listed in this database within 0.25 mile of the Subject Property.

5.2 Additional Environmental Record Sources

The orphan summary list in the EDR-Radius Map report identifies properties that cannot be mapped due to poor or inadequate address information. Twenty properties were listed on the orphan summary list. These properties are located relatively far from the Subject Property or are outside the ASTM-recommended search distances for applicable databases. Therefore,

ECT believes that the potential for subsurface conditions at these properties to pose a risk to subsurface conditions at the Subject Property is minimal.

5.3 Physical Setting Source(s)

The U.S. Geological Survey (USGS) 7.5-minute topographic map of the Gladstone, Michigan quadrangle was reviewed. The Subject Property is at an elevation of approximately 588 feet above mean sea level. The topographic gradient in the vicinity of the Subject Property appears to be to the east toward the adjoining Little Bay de Noc (part of Lake Michigan).

5.4 Historical Use Information on the Property

To evaluate historical use of the property, ECT reviewed readily available historical topographic maps, aerial photographs, street directories, and fire insurance maps.

5.4.1 Topographic Maps

ECT ordered available historical topographic maps of the Subject Property and its vicinity from EDR. The USGS 15-minute series quadrangle map of Gladstone, Michigan obtained from EDR is dated 1958 and the USGS 7.5-minute series quadrangle map of Gladstone, Michigan obtained from EDR is dated 1985. The Subject Property is depicted as containing two small structures in the northeastern portion of the Subject Property on the 1958 topographic map. Only one of the small structures in the northeastern portion of the Subject Property was depicted on the 1985 topographic map. The main power plant building is depicted and the Subject Property is labeled as containing a substation on the 1985 topographic map.

Copies of the available historic topographic maps are provided as **Appendix B**.

5.4.2 Aerial Photographs

ECT obtained historical aerial photographs of the Subject Property and its vicinity from EDR. The historical aerial photographs are dated 1939, 1954, 1964, 1981, 1991, and 2005. A review of historical aerial photographs document changes that have occurred in land uses and features located at the Subject Property and on adjoining properties. Copies of the historical aerial photographs are provided in **Appendix C**. The location of the Subject Property is identified on each aerial photograph. Descriptions of the Subject Property, as shown on the aforementioned aerial photographs, are provided in the following paragraphs.

1939 (Scale 1"=500')

Ore docks were apparent in the Little Bay de Noc immediately east of the Subject Property in the Little Bay de Noc. These docks appeared to be connected to railroad lines that traversed the Subject Property in an east-west and northwest-southeast direction. These railroad lines appeared to converge at a point located further west of the Subject Property. One structure, similar in size and in the same location as the larger building currently in the northeastern portion of the Subject Property, was noted.

1954 (Scale 1"=500')

The ore docks and railroad lines previously noted at the Subject Property and the eastern adjoining Little Bay de Noc were not present. Several pathways were apparent throughout the Subject Property. Three additional structures, similar in size and in the same location as the three smaller buildings currently in the northeastern portion of the Subject Property, were noted.

1964 (Scale 1"=500')

The Subject Property appeared to be improved with structures similar in size and configuration and in the same locations as the main power plant and office buildings, the electrical substation to its southeast, and the intake pump building located near the shoreline. The ash pond currently located in the eastern portion of the Subject Property was apparent. A fenced area was apparent in the northwestern portion of the Subject Property that appeared to be improved four storage buildings. Remnants of the apparent ore dock observed on the 1939 aerial photograph were apparent in Little Bay de Noc immediately east of the Subject Property. Fewer pathways were apparent throughout the Subject Property. Cleared land and conveyor equipment was apparent north of the four northwestern storage sheds. ECT did not observe other significant changes between the 1954 and 1964 aerial photographs of the Subject Property.

1981 (Scale 1"=600')

The resolution of the 1981 aerial photograph was poor. The warehouse and the precipitators that are immediately south and east of the main power plant building, respectively, were apparent. ECT did not observe other significant changes between the 1964 and 1981 aerial photographs of the Subject Property.

1991 (Scale Unknown)

ECT did not observe significant changes between the 1981 and 1991 aerial photographs of the Subject Property.

2005 (Scale 1"=604')

The combustion turbine and transformer area located south of the electrical substation was present. A fuel storage AST with a containment berm was also present immediately east of the combustion turbine and transformer area. ECT did not observe significant changes between the 1991 and 2005 aerial photographs of the Subject Property.

5.4.3 Street Directories

ECT ordered a city directory abstract for the Subject Property and its vicinity from EDR. EDR reviewed available city directories for the years spanning 1906 through 2009 at approximately five-year intervals. Power Plant Drive was listed in available city directories dated 1986 and later. A copy of the city directory abstract is provided as **Appendix D**.

The address of the Subject Property is 2000 Power Plant Drive. Gallagher Marine Construction, T.D. Vinette Company, and the Upper Peninsula Power Company – Escanaba Generating Station were listed as co-occupants of the Subject Property’s address in the 1986 city directory. The Upper Peninsula Power Company – Escanaba Generating Station was listed as the sole occupant of the Subject Property’s address in the 1991 and 1996 city directories. The Subject Property’s address was not listed in the researched city directories date after 1996.

5.4.4 Fire Insurance Maps

ECT ordered available Sanborn Fire Insurance Maps for the Subject Property and its vicinity from EDR. EDR reported that Sanborn Fire Insurance Maps are not available for the Subject Property and its vicinity. A copy of the Certified Sanborn Map Report and is provided in **Appendix E**.

Personnel with the City of Escanaba Assessing Department stated that the City of Escanaba Assessing Department has a 1929 Sanborn Fire Insurance Map of the Subject Property. The northeastern portion of the Subject Property was formerly an asphalt plant and the building present in this portion of the Subject Property in 1929 was labeled as “Wrecking Office.”

5.5 Historical Use Information on Adjoining Properties

To evaluate the historical use of the adjoining properties, ECT reviewed readily available historical topographic maps, aerial photographs, street directories, and fire insurance maps.

5.5.1 Topographic Maps

ECT ordered available historical topographic maps of the Subject Property and its vicinity from EDR. The USGS 15-minute series quadrangle map of Gladstone, Michigan obtained from EDR is dated 1958 and the USGS 7.5-minute series quadrangle map of Gladstone, Michigan obtained from EDR is dated 1985.

The roads currently named Ore Terminal Access Road and Power Plant Road were present on the 1958 and 1985 topographic maps, but were identified as private roads. The eastern adjoining property to the majority of the Subject Property was Little Bay de Noc on both topographic maps.

Properties located immediately northeast of the northeastern portion of the Subject Property and further west of the Subject Property were labeled as oil storage properties on the 1958 topographic map. Residences were apparent further north of the Subject Property. Ore docks were labeled immediately south of the Subject Property and a radio tower was identified immediately west of the Subject Property on the 1958 topographic map.

A levee and an “oat levee” that were utilized as containment structures for storage vessels were depicted on the properties located immediately northeast of the northeastern portion of the Subject Property on the 1985 topographic map. Oil storage was not specifically noted on these properties, and no evidence of oil storage was depicted further west of the Subject Property. Ore docks were not specifically labeled south of the Subject Property, but conveyors were noted along the shoreline south of the previously noted ore docks. No radio tower or other structures were noted immediately west of the Subject Property on the 1985 topographic map. Copies of the available historic topographic maps are provided as **Appendix B**.

5.5.2 Aerial Photographs

ECT obtained historical aerial photographs of the Subject Property and its vicinity from EDR. The historical aerial photographs are dated 1939, 1954, 1964, 1981, 1991, and 2005. A review of historical aerial photographs document changes that have occurred in land uses and features located at the Subject Property and on adjoining properties. Copies of the historical aerial photographs are provided in **Appendix C**. Descriptions of the adjoining properties, as shown on the aforementioned aerial photographs, are provided in the following paragraphs.

1939 (Scale 1”=500’)

The roads currently named Ore Terminal Access Road and Sheridan Road were present. Industrial buildings, several small support structures, and railcar/tote storage were noted further north of the Subject Property. What appeared to be ore storage was noted immediately northeast of the Subject Property.

Ore docks were apparent in the Little Bay de Noc immediately east of the property located south of the southern adjoining property that were similar in appearance to those noted on the Subject Property. The docks appeared to be connected to railroad lines that traversed the property located south of the southern adjoining property in an east-west and northwest-southeast direction and appeared to converge at a point located further west of the said property. Railroad lines/conveyors were apparent south of the docks.

No structures were noted west of the Subject Property.

1954 (Scale 1”=500’)

What appeared to be ore storage was noted on the northeastern adjoining property. Four ASTs were present on the property located north of the apparent ore storage area. Significantly less railcar/tote storage was noted north of the Subject Property. ECT did not observe other significant changes between the 1939 and 1954 aerial photographs of the Subject Property’s vicinity.

1964 (Scale 1”=500’)

A fifth AST was present north of the apparent ore storage area. Significantly less railcar/tote storage was noted north of the Subject Property and many of the areas formerly used as parking/storage areas appeared to be overgrown. Based on the resolution of the photograph, the ore docks associated with the property located south of the southern adjoining property

were not visible and a portion of the railroad lines were not present. ECT did not observe other significant changes between the 1954 and 1964 aerial photographs of the Subject Property's vicinity.

1981 (Scale 1"=600')

The southern adjoining property appeared to be improved with an industrial building. The docks associated with the property located south of the southern adjoining property were present, but the railroad lines connected to the docks were not present. Commercial/industrial structures were apparent further west of the docks. No railcar/tote storage was noted north of the Subject Property. ECT did not observe other significant changes between the 1964 and 1981 aerial photographs of the Subject Property's vicinity.

1991 (Scale Unknown)

The southern adjoining property appeared to be improved with a second industrial building. Areas west of Ore Terminal Access Road appeared to be more developed. ECT did not observe other significant changes between the 1981 and 1991 aerial photographs of the Subject Property's vicinity.

2005 (Scale 1"=604')

Property formerly used as railroad car/tote storage further north of the Subject Property appeared to be improved with a parking lot. Areas west of Ore Terminal Access Road appeared to be more developed. ECT did not observe other significant changes between the 1991 and 2005 aerial photographs of the Subject Property's vicinity.

5.5.3 Street Directories

ECT ordered a city directory abstract for the Subject Property and its vicinity from EDR. EDR reviewed available city directories for the years spanning 1906 through 2009 at approximately five-year intervals. Power Plant Drive was listed in available city directories dated 1986 and later. A copy of the city directory abstract is provided as **Appendix D**.

According to the EDR-City Directory Abstract, no other addresses were listed on Power Plant Drive in the researched city directories.

5.5.4 Fire Insurance Maps

ECT ordered available Sanborn Fire Insurance Maps for the Subject Property and its vicinity from EDR. EDR reported that Sanborn Fire Insurance Maps are not available for the Subject Property and its vicinity. A copy of the Certified Sanborn Map Report is provided in **Appendix E**.

6.0 SITE RECONNAISSANCE

On October 2, 2009, Mr. Dirk Mammen of ECT performed a site reconnaissance of the Subject Property to observe general site conditions and indications of the possible release(s) of chemicals to the subsurface. A walkover site inspection was conducted to identify visible evidence of recognized environmental conditions. Mr. Mammen was accompanied by Mr. Charles Detiege with the UP Power Company and Mr. Dennis Bittner of Bittner Engineering. Photographs taken during ECT's site inspection are included in **Appendix F**.

Ms. Jennifer Churgin-Brown prepared this Phase I ESA report documenting ECT's observations and documentation review. Mr. Dirk Mammen provided the final technical review of this report. Qualifications for Mr. Mammen and Ms. Churgin-Brown are included in **Appendix G**.

6.1 Methodology and Limiting Conditions

ECT was provided full access to the property. The methodology for the site reconnaissance included observing the Subject Property.

6.2 General Site Setting

6.2.1 Current Use(s) of the Property

At the time of the site reconnaissance, the central portion of the Subject Property contained the operating Escanaba Power Plant.

The buildings at the former asphalt plant located northeast of the power plant were utilized as auxiliary storage for the City of Escanaba (e.g., insulation, window screens, and trash cans). The building with the adjoining AST was used to house tires.

City of Escanaba storage buildings were used to store parade equipment, furniture, tires, and other items used for city functions. Utility pole storage for the City of Escanaba is located between the former asphalt plant and the City of Escanaba storage buildings.

A grading and sorting area for gravel and stone to be used for road construction activities was located north of the City of Escanaba storage buildings. Materials are trucked onto the Subject Property for grading and sorting and leave the Subject Property via truck. Refueling operations are not conducted at the Subject Property.

6.2.2 Past Use(s) of the Property

Based on a review of a 1929 Sanborn Fire Insurance Map, an asphalt plant was operating in the northeastern portion of the Subject Property as early as 1929. Information regarding the actual dates that the asphalt plant commenced and ceased operations was not available.

A review of a 1939 aerial photograph indicated that ore docks were apparent in the Little Bay de Noc immediately east of the Subject Property in the Little Bay de Noc. These docks appeared to be connected to railroad lines that traversed the Subject Property in an east-west and northwest-southeast direction. These railroad lines appeared to converge at a point

located further west of the Subject Property. The ore docks and railroad lines were not observed on the 1954 aerial photograph. Information regarding the actual dates that the ore docks and railroad lines were used was not available.

Based on a review of aerial photographs, the central portion of the Subject Property was improved with the Escanaba Power Plant between 1954 and 1964. The fenced storage area for the City of Escanaba, located northwest of the Escanaba Power Plant, was also improved with four storage buildings between 1954 and 1964. The grading and sorting area appeared to commence operations between 1954 and 1964 and is currently operating.

6.2.3 Current Uses of Adjoining Properties

The northern adjoining property across Power Plant Road is largely undeveloped land owned by the City of Escanaba. The Escanaba Coal and Dock Company is located immediately northeast of the former asphalt plant at the Subject Property. The C. Reiss Coal Company and a City of Escanaba-owned AST farm is located north of the Escanaba Coal and Dock Company. Vinette's Boat Works is located south of the Subject Property. A City of Escanaba-owned warehouse and storage yard is also located south of the Subject Property across Nineteenth Avenue North. The Little Bay de Noc is located east of the Subject Property and storage yards are located west of the Subject Property across Ore Terminal Access Road, railroad tracks and Sheridan Road.

6.2.4 Past Uses of Adjoining Properties

Based on a review of historical aerial photographs, the northeastern adjoining property has been utilized for ore storage from as early as 1939. The property located immediately north of the Subject Property has been undeveloped from as early as 1939. The property located north of the northern adjoining property has contained an AST farm since as early as 1954.

The southern adjoining property was commercially developed between 1964 and 1981. From as early as 1939 until circa 1964, ore docks were apparent in the Little Bay de Noc immediately east of the property located south of the southern adjoining property that were similar in appearance to those noted on the Subject Property. The docks appeared to be connected to railroad lines that traversed the property located south of the southern adjoining property in an east-west and northwest-southeast direction and appeared to converge at a point located further west of the said property.

The eastern adjoining property has always been the Little Bay de Noc. Ore Terminal Road followed by railroad tracks and then Sheridan Road were present west of the Subject Property from as early as 1939. Development of areas west of Sheridan Road appeared to commence between 1954 and 1964.

6.2.5 Current or Past Uses in the Surrounding Area

Based on historical aerial photographs, the property further north of the Subject Property was utilized as railroad car/tote storage from as early as 1939 with significant reduction of storage apparent in 1954 and 1964. No storage was noted on the 1981 aerial photograph. Property further north of the Subject Property appeared to be improved with a parking lot on the 2005

aerial photograph. The surrounding area was predominantly wooded, residential, or commercial/industrial from as early as 1939 through the present.

6.2.6 Geologic, Hydrogeologic, Hydrologic, and Topographic Conditions

The EDR-Radius Map report stated that the Subject Property is underlain by bedrock of the Paleozoic Era, Ordovician System, and Middle Ordovician (Mohawkian) Series. The dominant soil composition in the general vicinity of the Subject Property is Rubicon sand.

Based on a review of topography, regional shallow ground water in the site area is anticipated to flow east toward Little Bay De Noc (part of Lake Michigan).

6.3 Exterior Observations

The following items were looked for, or identification was attempted, as indicated in the ASTM standard.

6.3.1 Hazardous Substances and Petroleum Products in Connection with Identified Uses

The presence of hazardous substances or petroleum products in connection with the Subject Property was investigated. As described below, various hazardous substances and petroleum products were identified on the exterior portions of the Subject Property, including petroleum products associated with the combustion-fuel AST located south of the power plant footprint, minor amounts of gasoline and oil for lawn and snow removal equipment, and various storage totes awaiting interior placement (e.g., process materials, water clarification materials).

6.3.2 Storage Tanks

ECT looked for ASTs, USTs, and evidence of USTs (e.g., vent pipes, fill pipes, or access ways indicating USTs) during the site reconnaissance. ECT observed the following two ASTs currently in use on the exterior portions of the Subject Property:

- An AST associated with the combustion turbine area is located south of the power plant footprint. This AST is placed within an unlined earthen berm containment. Mr. Detiege indicated that regulatory agencies have requested the UP Power Company to add an impermeable liner material to the berm associated with the combustion-fuel AST. No stained soil or other evidence of releases were observed in the vicinity of this AST.
- A small diesel-fuel AST is located south of the southwest corner of the main power plant building (south of the maintenance area). This AST is placed within a fully covered, concrete containment unit. No stained soil or other evidence of releases were observed in the vicinity of this AST.

ECT observed evidence of the following two ASTs formerly used on the exterior portions of the Subject Property:

- An abandoned AST, placed on a concrete cradle, was observed west of the oldest building associated with the former asphalt plant in the northeastern corner of the Subject Property. It appeared likely that this AST has not been used for many decades. No stained soil was observed in the vicinity of this AST; however, stressed vegetation was noted in its vicinity.
- An empty concrete AST cradle was observed along the southern fence line of the Subject Property. No stained soil was observed in the vicinity of this AST cradle.

ECT did not observe evidence of USTs at the Subject Property at the time of the site reconnaissance. However, according to the EDR-Radius Map report for the Subject Property, two 3,000-gallon diesel USTs were installed at the Subject Property on March 27, 1975 and were removed on July 16, 1992. No releases were reported from these USTs. No additional information regarding these USTs was available.

6.3.3 Odors

The Subject Property was checked for strong, pungent, or noxious odors and their sources during the site reconnaissance. No readily noticeable strong, pungent, or noxious odors were encountered at the time of the site reconnaissance.

6.3.4 Pools of Liquid

ECT looked for standing surface water and pools or sumps containing liquids likely to contain hazardous substances or petroleum products during the site reconnaissance. No standing surface water, pools, or sumps were observed onsite at the time of the site reconnaissance.

6.3.5 Drums

ECT looked for storage drums during the site reconnaissance. ECT observed various known and usable materials associated with power plant operations were observed to be stored in totes and drums along the exterior walls of the main power plant building. The totes and drums appeared to be in good condition and did not appear to be leaking. ECT did not observe evidence of staining or spills on the ground in the vicinity of the totes and drums.

ECT observed what appeared to be empty open-top drums in the northwestern corner of the city storage area in the northwestern portion of the Subject Property. These drums are not used for chemical storage, but are used as trash receptacles for city events.

6.3.6 Hazardous Substances and Petroleum Products Containers (Not Necessarily in Connection with Identified Uses)

ECT looked for hazardous substances and petroleum products containers during the site reconnaissance. No hazardous substances and petroleum products containers that were not in connection with identified uses were observed on the exterior portions of the Subject Property at the time of the site reconnaissance.

6.3.7 Unidentified Substance Containers

ECT looked for open or damaged containers containing unidentified substances suspected of being hazardous substances or petroleum products during the site reconnaissance. No such containers were observed on the exterior portions of the Subject Property at the time of the site reconnaissance.

6.3.8 PCBs

ECT looked for electrical or hydraulic equipment known to contain PCBs or likely to contain PCBs during the site reconnaissance. As indicated in the ASTM standard, fluorescent light ballasts (which may or may not be present onsite) were not evaluated.

An electrical substation was constructed southwest of the main power plant building prior to 1978. Most of the liquid-containing units were not labeled as to PCB content, but based upon the construction date of the electrical substation, the dielectric fluid in many of the liquid-containing units is likely to be PCB-containing. While evidence of current releases was not observed, the soil below many of the units is gravel covered, making historical releases difficult to determine.

In addition, three pad-mounted transformers are located along the northern exterior wall of the main power plant building near its northwestern corner. The transformers appeared to be in good condition and did not appear to be leaking. The ground in the vicinity of these transformers is paved and evidence of historical releases was not observed.

A combustion turbine and associated transformers were installed south of the power plant footprint in 2000. Based on the recent installation date, the dielectric fluid in these transformers is not likely to be PCB containing.

6.3.9 Pits, Ponds, or Lagoons

ECT looked for pits, ponds, or lagoons on the Subject Property and on adjoining properties (to the extent they were visually and/or physically observable from the Subject Property) during the site reconnaissance. Two ash ponds are located along the east side of the Subject Property. These ponds accept the water discharge from plant coolant operations. At the time of the site reconnaissance, dark stained soil was observed in some areas of the ponds and oil absorbent booms were in use. Discussions with operations personnel indicated that releases of ash materials and oils has occurred and that the ponds do not appear to be holding liquids appropriately. This suggests the potential for releases to have occurred directly to the shallow groundwater and the eastern adjacent Little Bay de Noc. In addition, operations personnel indicated that regulatory agencies have requested that soil and groundwater sampling be conducted between the ponds and the Little Bay de Noc to determine whether the ponds have impacted the subsurface conditions.

No other pits, ponds, or lagoons were observed at the Subject Property or its adjoining properties.

6.3.10 Stained Soil or Pavement

ECT looked for areas of stained soil or pavement during the site reconnaissance. No areas of stained soil or pavement were observed during the site reconnaissance, with the exception of the aforementioned stained soils associated with the ash ponds.

6.3.11 Stressed Vegetation

ECT looked for areas of stressed vegetation (from other than insufficient watering) during the site reconnaissance. No areas of stressed vegetation were observed during the site reconnaissance, with the exception of some areas in the vicinity of the former asphalt plant in the northeast corner of the Subject Property and in spots around the ash ponds.

6.3.12 Solid Waste

ECT looked for areas that are apparently filled or graded by non-natural causes (or filled by fill of unknown origin) suggesting trash construction debris, demolition debris, or other solid waste disposal, or mounds or depressions suggesting trash or other solid waste disposal during the site reconnaissance. No areas were observed suggesting any subsurface placement of waste debris. Areas of surface waste debris include primarily waste metal objects in the vicinity of the former asphalt plant and its associated sheds located in the northeast corner of the Subject Property and around the four storage sheds located in the northwestern portion of the Subject Property.

6.3.13 Wastewater

ECT looked for wastewater or other liquids (including storm water) or any discharge into a drain, ditch, underground injection system, or stream on or adjoining to the Subject Property during the site reconnaissance. Stormwater run off is expected to infiltrate the ground surface of the Subject Property and follow natural topography to the eastern adjoining Little Bay de Noc (Lake Michigan). With the exception of the aforementioned wastewater discharge ponds (ash ponds), no other wastewater or liquids were observed discharging into drains, ditches, underground injection systems, or streams on or adjoining the Subject Property.

6.3.14 Wells

ECT looked for wells, including dry wells, irrigation wells, injection wells, monitoring wells, abandoned wells, or other wells during the site reconnaissance. No wells were observed.

6.3.15 Septic Systems

ECT looked for indications of onsite septic systems or cesspools during the site reconnaissance. The current operation utilizes one septic field system located to the west of the main power plant building.

6.4 Interior Observations

The following items were looked for, or identification was attempted, as indicated in the ASTM standard.

6.4.1 Heating/Cooling

The primary power plant areas are not specifically heated since the interior areas are heated directly from the turbine and coal fired operations. The office and other maintenance areas are fed with steam heat units.

The remaining onsite buildings were not heated or cooled.

6.4.2 Stains or Corrosion

ECT looked for areas of stained or corroded floors, walls, or ceilings during the site reconnaissance.

Only minor evidence of floor staining was observed within the main power plant buildings, primarily associated with the water clarification and demineralization processes, suggesting only minimal chemical threat. No obvious floor staining was observed in the materials storage room or within the maintenance and repair rooms.

Some historical floor staining on the concrete floor was observed within the sheds associated with the former asphalt plant in the northeast corner of the Subject Property. No liquid storage was observed in these sheds at the time of the site reconnaissance.

No other significant areas of stained or corroded floors, walls, or ceilings were noted inside the onsite buildings during the site reconnaissance.

6.4.3 Drains and Sumps

ECT looked for floor drains and sumps during the site reconnaissance. No drains or sumps were observed within the onsite buildings.

6.4.4 Hazardous Substances and Petroleum Products in Connection with Identified Uses

The presence of hazardous substances or petroleum products was investigated. Many hazardous substances and petroleum products in connection with identified uses were observed inside the power plant buildings at the time of the site reconnaissance, including water clarification and demineralization chemicals, maintenance materials, lubricant oils, and a self-contained solvent wash basin. The containers of these materials appeared to be in good condition and did not appear to be leaking at the time of the site reconnaissance.

6.4.5 Storage Tanks

ECT looked for ASTs, USTs, and evidence of UST (e.g., vent pipes, fill pipes, or access ways indicating USTs) during the site reconnaissance. No ASTs, USTs, or evidence of USTs were observed inside the onsite buildings.

6.4.6 Odors

ECT checked for strong, pungent, or noxious odors and their sources during the site reconnaissance. No noticeable strong, pungent, or noxious odors were encountered inside the onsite buildings.

6.4.7 Pools of Liquid

ECT looked for standing surface water and pools or sumps containing liquids likely to contain hazardous substances or petroleum products during the site reconnaissance. No standing surface water, pools, or sumps were observed inside the onsite buildings.

6.4.8 Drums

ECT looked for storage drums during the site reconnaissance. Various known and identified drums of operations and process chemicals were stored in drums and totes within the main plant building. Most of the materials were stored on spill containment pallets or within the curbed containment storage room. The containers of the observed materials appeared to be in good condition and did not appear to be leaking at the time of the site reconnaissance.

6.4.9 Hazardous Substances and Petroleum Products Containers (Not Necessarily in Connection With Identified Uses)

ECT looked for hazardous substances and petroleum products containers during the site reconnaissance. ECT observed unlabelled and abandoned dry chemicals stored within the sheds located in the former asphalt plant in the northeastern portion of the Subject Property. Potential historical uses of these dry chemical materials may include fertilizers, herbicides, cement materials, and/or pool chemicals.

6.4.10 Unidentified Substance Containers

ECT looked for open or damaged containers containing unidentified substances suspected of being hazardous substances or petroleum products during the site reconnaissance. With the exception of the materials discussed in Section 6.4.9, no unidentified substance containers were observed within the onsite buildings.

6.4.11 PCBs

ECT looked for electrical or hydraulic equipment known to contain PCBs or likely to contain PCBs was looked for during the site reconnaissance. As indicated in the ASTM standard, fluorescent light ballasts (which may or may not be present onsite) were not evaluated. No electrical or hydraulic equipment known to contain PCBs or likely to contain PCBs were identified inside the onsite buildings at the time of the site reconnaissance.

7.0 INTERVIEWS

7.1 Interviews with Site Contacts

Prior to completion of the Phase I environmental site assessment, ECT interviewed Mr. Charles Detiege, Environmental Manager with UP Power Company (current operator of the Subject Property). He was asked if he knew whether any of the documents below exist and, if so, whether copies would be provided:

- Environmental site assessment reports
- Environmental audit reports
- Environmental permits (for example, solid waste disposal permits, hazardous waste disposal permits, wastewater permits, National Pollutant Discharge Elimination System permits, underground injection permits)
- Registrations for USTs and ASTs
- Registrations for underground injection systems
- Material safety data sheets
- Community right-to-know plan
- Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans; etc.
- Reports regarding hydrogeologic conditions on the property or surrounding area
- Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property
- Hazardous waste generator notices or reports
- Risk assessments
- Recorded Activity Use Limitations

ECT was provided with a Physical Assessment of Asbestos-Containing Building Materials, prepared by Pearson Asbestos Abatement, Inc. and dated January 2005. Pertinent information included in Pearson Asbestos Abatement, Inc.'s report is provided in the appropriate sections of this report. None of the other above-listed documentation was provided.

Mr. Detiege was asked to answer the following questions as part of the assessment:

- Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?
- Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?
- Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?

Mr. Detiege indicated that regulatory agencies have requested the UP Power Company to test soil and groundwater near the ash ponds and to add an impermeable liner material to the berm associated with the combustion-fuel AST.

7.2 Interviews with Local Government Officials

No local or state government officials were contacted during this investigation. Information obtained through the historical review and review of the regulatory agency files provided sufficient information for the investigation.

8.0 FINDINGS

This section identifies known or suspect RECs, historical RECs, and *de minimis* conditions discovered during this Phase I ESA investigation.

8.1 Known or Suspect RECs

This assessment has revealed the following current RECs associated with the Subject Property:

- Potential subsurface contamination related to the current and historical usage of the ash ponds in the eastern portion of the Subject Property.

Used cooling water is discharged to the ash ponds. Mr. Detiege stated that the used cooling water contains ash and metals and is discharged to the onsite ash ponds located east of the power plant footprint on the Subject Property. Recently, oils have also been observed in the ash ponds. Mr. Detiege indicated that regulatory agencies have requested the UP Power Company to test soil and groundwater near the ash ponds.

- The historic presence of industrial operations at the Subject Property.

Based on a review of a 1929 Sanborn Fire Insurance Map, an asphalt plant was operating in the northeastern portion of the Subject Property as early as 1929. Information regarding the actual dates that the asphalt plant commenced and ceased operations was not available. An abandoned AST, placed on a concrete cradle, was observed west of the oldest building associated with the former asphalt plant. It appeared likely that this AST has not been used for many decades. No stained soil was observed in the vicinity of this AST; however, stressed vegetation was noted.

Some historical floor staining on the concrete floor was observed within the sheds associated with the former asphalt plant. No liquid storage was observed in these sheds at the time of the site reconnaissance. However, ECT observed unlabelled and abandoned dry chemicals stored within the sheds. Potential historical uses of these dry chemical materials may include fertilizers, herbicides, cement materials, and/or pool chemicals.

A review of a 1939 aerial photograph indicated that ore docks were apparent in the Little Bay de Noc immediately east of the Subject Property. These docks appeared

to be connected to railroad lines that traversed the Subject Property in an east-west and northwest-southeast direction. These railroad lines appeared to converge at a point located further west of the Subject Property. The ore docks and railroad lines were not observed on the 1954 aerial photograph. Information regarding the actual dates that the ore docks and railroad lines were used was not available.

Based on a review of aerial photographs, the central portion of the Subject Property was improved with the Escanaba Power Plant between 1954 and 1964. The fenced storage area for the City of Escanaba, located northwest of the Escanaba Power Plant, was also improved with four storage buildings between 1954 and 1964. The grading and sorting area appeared to commence operations between 1954 and 1964 and is currently operating.

In addition, ECT noted an empty concrete AST cradle along the southern fence line of the Subject Property. No stained soil was observed in the vicinity of this AST cradle.

- The current presence of a combustion-fuel AST.

An AST associated with the combustion turbine area is located south of the power plant footprint. This AST is placed within an unlined earthen berm containment. Mr. Detiege indicated that regulatory agencies have requested the UP Power Company to add an impermeable liner material to the berm associated with the combustion-fuel AST. No stained soil or other evidence of releases were observed in the vicinity of this AST.

- The former presence of USTs at the Subject Property.

According to the EDR-Radius Map report, two 3,000-gallon diesel USTs were installed at the Subject Property on March 27, 1975 and were removed on July 16, 1992. No releases were reported from these USTs. No additional information regarding these USTs is available.

8.2 Historical RECs

No historical RECs were identified during this Phase I ESA.

8.3 De Minimis Conditions

No *de minimis* conditions were identified during this Phase I ESA.

In addition, the following potential environmental concerns that are excluded from the definition of a REC were identified:

- The confirmed and potential presence of ACM in building materials used in the onsite buildings.

Pearson Asbestos Abatement, Inc. conducted a Physical Assessment of Asbestos-Containing Building Materials, dated January 2005. Asbestos-containing pipe

insulation, mud elbows, boiler insulation, and other TSI materials were identified in the main power plant building. None of these materials were observed to be damaged. Other building materials in the main power plant building (e.g., roofing, flooring, ceiling, and mastic materials) and building materials in the remaining onsite buildings were not sampled. Based on the ages of the onsite buildings, the potential exists for building materials used in the onsite buildings to contain asbestos.

- The potential presence of lead/LBP within the onsite buildings.

Based on the ages of the onsite buildings, the potential exists for lead window glazing and/or LBP to be present. A lead/LBP survey was not completed as part of this Phase I ESA and no previously conducted lead/LBP survey was provided to ECT for review.

9.0 OPINION

This section presents the environmental professional's opinion(s) of the impact on the property of conditions identified in the findings section. No evidence of historical RECs or *de minimis* conditions was identified during this Phase I ESA. This assessment has revealed the following current RECs associated with the Subject Property:

- Potential subsurface contamination related to the current and historical usage of the ash ponds in the eastern portion of the Subject Property.

Used cooling water is discharged to the ash ponds. Mr. Detiege stated that the used cooling water contains ash and metals and is discharged to the onsite ash ponds located east of the power plant footprint on the Subject Property. Recently, oils have also been observed in the ash ponds. Mr. Detiege indicated that regulatory agencies have requested the UP Power Company to test soil and groundwater near the ash ponds.

- The historic presence of industrial operations at the Subject Property.

Based on a review of a 1929 Sanborn Fire Insurance Map, an asphalt plant was operating in the northeastern portion of the Subject Property as early as 1929. Information regarding the actual dates that the asphalt plant commenced and ceased operations was not available. An abandoned AST, placed on a concrete cradle, was observed west of the oldest building associated with the former asphalt plant. It appeared likely that this AST has not been used for many decades. No stained soil was observed in the vicinity of this AST; however, stressed vegetation was noted.

Some historical floor staining on the concrete floor was observed within the sheds associated with the former asphalt plant. No liquid storage was observed in these sheds at the time of the site reconnaissance. However, ECT observed unlabelled and abandoned dry chemicals stored within the sheds. Potential historical uses of these dry chemical materials may include fertilizers, herbicides, cement materials, and/or pool chemicals.

A review of a 1939 aerial photograph indicated that ore docks were apparent in the Little Bay de Noc immediately east of the Subject Property. These docks appeared to be connected to railroad lines that traversed the Subject Property in an east-west and northwest-southeast direction. These railroad lines appeared to converge at a point located further west of the Subject Property. The ore docks and railroad lines were not observed on the 1954 aerial photograph. Information regarding the actual dates that the ore docks and railroad lines were used was not available.

Based on a review of aerial photographs, the central portion of the Subject Property was improved with the Escanaba Power Plant between 1954 and 1964. The fenced storage area for the City of Escanaba, located northwest of the Escanaba Power Plant, was also improved with four storage buildings between 1954 and 1964. The grading and sorting area appeared to commence operations between 1954 and 1964 and is currently operating.

In addition, ECT noted an empty concrete AST cradle along the southern fence line of the Subject Property. No stained soil was observed in the vicinity of this AST cradle.

- The current presence of a combustion-fuel AST.

An AST associated with the combustion turbine area is located south of the power plant footprint. This AST is placed within an unlined earthen berm containment. Mr. Detiege indicated that regulatory agencies have requested the UP Power Company to add an impermeable liner material to the berm associated with the combustion-fuel AST. No stained soil or other evidence of releases were observed in the vicinity of this AST.

- The former presence of USTs at the Subject Property.

According to the EDR-Radius Map report, two 3,000-gallon diesel USTs were installed at the Subject Property on March 27, 1975 and were removed on July 16, 1992. No releases were reported from these USTs. No additional information regarding these USTs is available.

Other potential environmental concerns at the Subject Property include:

- The confirmed and potential presence of asbestos-containing materials (ACM) in building materials used in the onsite buildings.

Pearson Asbestos Abatement, Inc. conducted a Physical Assessment of Asbestos-Containing Building Materials, dated January 2005. Asbestos-containing pipe insulation, mud elbows, boiler insulation, and other thermal system insulation (TSI) materials were identified in the main power plant building. None of these materials were observed to be damaged. Other building materials in the main power plant building (e.g., roofing, flooring, ceiling, and mastic materials) and building materials in the remaining onsite buildings were not sampled. Based on the ages of the onsite buildings, the potential exists for building materials used in the onsite buildings to contain asbestos.

- The potential presence of lead/lead-based paint (LBP) within the onsite buildings.

Based on the ages of the onsite buildings, the potential exists for lead window glazing and/or LBP to be present. A lead/LBP survey was not completed as part of this Phase I ESA and no previously conducted lead/LBP survey was provided to ECT for review.

10.0 CONCLUSIONS

ECT has performed a Phase I ESA and limited Phase II ESA of the Escanaba Power Plant property located at 2000 Power Plant Drive in Escanaba, Delta County, Michigan 49829 (Subject Property). The Phase I ESA was performed in conformance with the scope and limitations of ASTM Practice E 1527. Any exceptions to, or deletions from, this practice are described in Section 12.0 of this report.

The Phase I ESA findings were outlined in Sections 9.0 of this report. In an effort to evaluate and determine the presence of potential environmental risks associated with the Subject Property, ECT recommends the completion of additional site assessment activities.

In addition, based on the fact that ACM materials have been identified in the main power plant building, ECT recommends that precautions are taken not to disturb ACM during any renovation and/or demolition activities within the main power plant building. ECT also recommends that a comprehensive ACM survey, including all suspect ACM, be conducted prior to performing renovation and/or demolition activities at the onsite buildings. Based on the age of the onsite buildings, the potential exists for lead and LBP to be present. ECT recommends that lead/LBP surveys be conducted prior to performing renovation and/or demolition activities at the Subject Property.

11.0 DEVIATIONS/DATA GAPS

The following deviations from the ASTM practice were identified:

- The recently-enacted All Appropriate Inquiry standard and ASTM practice indicates that the Tribal equivalent of the CERCLIS, Solid Waste Facilities/Landfill (SWF/LF), Institutional Control/Engineering Controls, Voluntary Cleanup, and Brownfields databases be searched. It is the understanding of ECT that these databases are not available for the State of Michigan. The impact of this deviation is considered negligible with regard to identifying RECs.

12.0 ADDITIONAL SERVICES

The following additional services were not provided as part of the scope for conducting this Phase I ESA:

Asbestos-containing materials assessment;	Industrial Hygiene;
Radon assessment;	Health and safety;
Lead-based paint survey;	Ecological Resources;
Lead in drinking water;	Endangered species;
Wetlands;	Indoor air quality;
Regulated compliance;	Biological agents; and
Cultural and historic resources;	Mold.

13.0 REFERENCES

ASTM, 2005 American Society for Testing and Materials (ASTM), Standard E 1527, Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process, 2005.

Interviews conducted with Mr. Charles Detiege, Environmental Manager with UP Power Company (current operator of the Subject Property), October 2, 2009.

USGS, 7.5 Minute Series Topographic Quadrangle *Gladstone, Michigan*, 1985.

Environmental Data Resources, Inc., (EDR), EDR-Radius Map Report: Inquiry No. 2603948.2s, October 26, 2009.

Environmental Data Resources, Inc., (EDR), The EDR Aerial Photo Decade Package: Inquiry No. 2603948.5, October 5, 2009.

Environmental Data Resources, Inc., (EDR), The EDR Certified Sanborn Map Report: Inquiry No. 2603948.3, September 30, 2009.

Environmental Data Resources, Inc., (EDR), The EDR City Directory Abstract: Inquiry No. 2603948.6, October 28, 2009.

Environmental Data Resources, Inc., (EDR), The EDR Historical Topographic Map Report: Inquiry No. 2603948.4, September 30, 2009.

Pearson Asbestos Abatement, Inc., *Physical Assessment of Asbestos-Containing Building Materials*, January 2005.

14.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

The environmental assessment described herein was conducted by the undersigned employees of ECT. ECT's investigation consisted solely of the activities described in the Introduction of this report, and in accordance with the Terms and Conditions of the Standard Consulting Services Agreement signed prior to initiation of the assessment, as applicable.

I declare that, to the best of my professional knowledge and belief, I meet the definition of environmental professional as defined in §312.10 of 40 C.F.R. 312. I, have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 C.F.R. Part 312.

Report Prepared By:



Jennifer Churgin-Brown, CHMM
Senior Associate Scientist

Report Reviewed and Approved By:



Dirk Mammen
Senior Scientist

FIGURES



GRAPHIC SCALE

0 125 250 500



SCALE IN FEET

NOTE: NOT LEGAL SURVEY

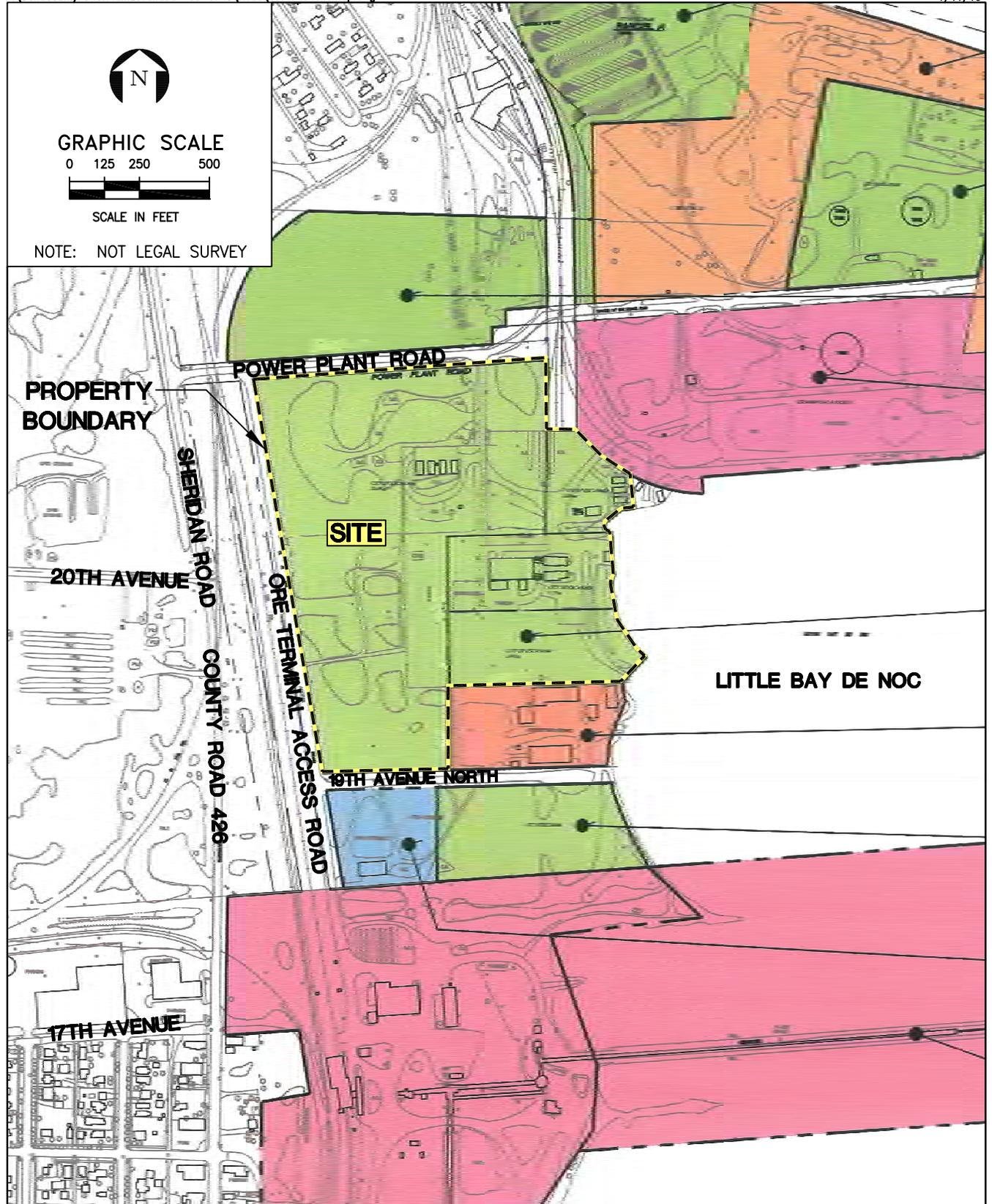


FIGURE 2. SITE AND SURROUNDING PROPERTIES MAP

Source: City of Escanaba, 2009.

**ESCANABA POWER PLANT
2000 POWER PLANT DR
ESCANABA, MI 49829**



Environmental Consulting & Technology, Inc.
44315 North Groesbeck Highway
Clinton Township, Michigan 48036
Phone: 586-465-2583 Fax: 586-465-4673
www.ectinc.com

APPENDIX A

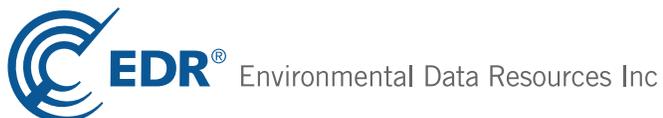
EDR-Radius Map Report

Escanaba Power Plant

2000 Power Plant Dr.
Escanaba, MI 49829

Inquiry Number: 2603948.2s
October 26, 2009

The EDR Radius Map™ Report with GeoCheck®



440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

2000 POWER PLANT DR.
ESCANABA, MI 49829

COORDINATES

Latitude (North): 45.772000 - 45° 46' 19.2"
Longitude (West): 87.064700 - 87° 3' 52.9"
Universal Transverse Mercator: Zone 16
UTM X (Meters): 494969.4
UTM Y (Meters): 5068500.0
Elevation: 588 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 45087-G1 GLADSTONE, MI
Most Recent Revision: 1985

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year: 2005
Source: USDA

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 7 of the attached EDR Radius Map report:

<u>Site</u>	<u>Database(s)</u>	<u>EPA ID</u>
CITY OF ESCANABA GENERATING STATI 2000 POWER PLANT RD ESCANABA, MI 49829	AST	N/A
CITY OF ESCANABA 2000 POWER PLANT RD ESCANABA, MI 49829	AIRS	N/A
ESCANABA GENERATING STATION 2000 POWER PLANT RD ESCANABA, MI 49829	TRIS	49829PPRPN20
POWER PLANT LOCATION NORTH ESCANABA ESCANABA, MI 49829	UST	N/A

EXECUTIVE SUMMARY

UPPER PENINSULA POWER ESCANABA GE 2000 POWER PLANT ROAD ESCANABA, MI 49829	PADS FINDS	MID155780976
ESCANABA GENERATING STATION 2000 POWER PLANT RD NORTH ESCANABA, MI 49931	UST	N/A
ESCANABA MUNICIPAL ELECTRIC UTILI 2000 POWER PLANT ROAD ESCANABA, MI 49829	NPDES	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Transporters, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators

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RCRA-SQG..... RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Facilities Database

State and tribal leaking storage tank lists

LUST..... Leaking Underground Storage Tank Sites

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields and UST Site Database

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI..... Open Dump Inventory

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

HIST LF..... Inactive Solid Waste Facilities

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs

DEL SHWS..... Delisted List of Contaminated Sites

CDL..... Clandestine Drug Lab Listing

US HIST CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS 2..... CERCLA Lien Information

EXECUTIVE SUMMARY

LUCIS..... Land Use Control Information System
LIENS..... Lien List

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
SPILLS..... Pollution Emergency Alerting System

Other Ascertainable Records

DOT OPS..... Incident and Accident Data
DOD..... Department of Defense Sites
FUDS..... Formerly Used Defense Sites
CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
UMTRA..... Uranium Mill Tailings Sites
MINES..... Mines Master Index File
TSCA..... Toxic Substances Control Act
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
SSTS..... Section 7 Tracking Systems
ICIS..... Integrated Compliance Information System
MLTS..... Material Licensing Tracking System
RADINFO..... Radiation Information Database
RAATS..... RCRA Administrative Action Tracking System
UIC..... Underground Injection Wells Database
DRYCLEANERS..... Drycleaning Establishments
INDIAN RESERV..... Indian Reservations
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
PCB TRANSFORMER..... PCB Transformer Registration Database
COAL ASH..... Coal Ash Disposal Sites

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants..... EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 11/12/2008 has revealed that there are 2 RCRA-CESQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MEAD WOOLANDS TRUCK GARAGE	1800 20TH AVE N	W 1/8 - 1/4 (0.230 mi.)	9	13
CITY OF ESCANABA	1715 SHERIDAN RD	WSW 1/8 - 1/4 (0.244 mi.)	B10	15

State- and tribal - equivalent CERCLIS

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Quality's Contaminated Sites List on Diskette With Address.

A review of the SHWS list, as provided by EDR, and dated 08/11/2009 has revealed that there is 1 SHWS site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ESCANABA SCHOOLS BUS GARAGE #2	2220 20TH AVENUE	W 1/2 - 1 (0.723 mi.)	13	19
Facility Status: See Leaking Underground Storage Tank Site Database				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Michigan UST database.

A review of the UST list, as provided by EDR, and dated 09/01/2009 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FUELING STATION	1711 SHERIDAN RD	WSW 1/8 - 1/4 (0.249 mi.)	B11	18

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

RCRA-NonGen: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA-NonGen list, as provided by EDR, and dated 11/12/2008 has revealed that there is 1 RCRA-NonGen site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
H J MANUFACTURING INC	3707 19TH AVE N	S 1/8 - 1/4 (0.153 mi.)	8	11

BEA: Baseline Environmental Assessment.

A review of the BEA list, as provided by EDR, and dated 09/14/2009 has revealed that there is 1 BEA site within approximately 0.5 miles of the target property.

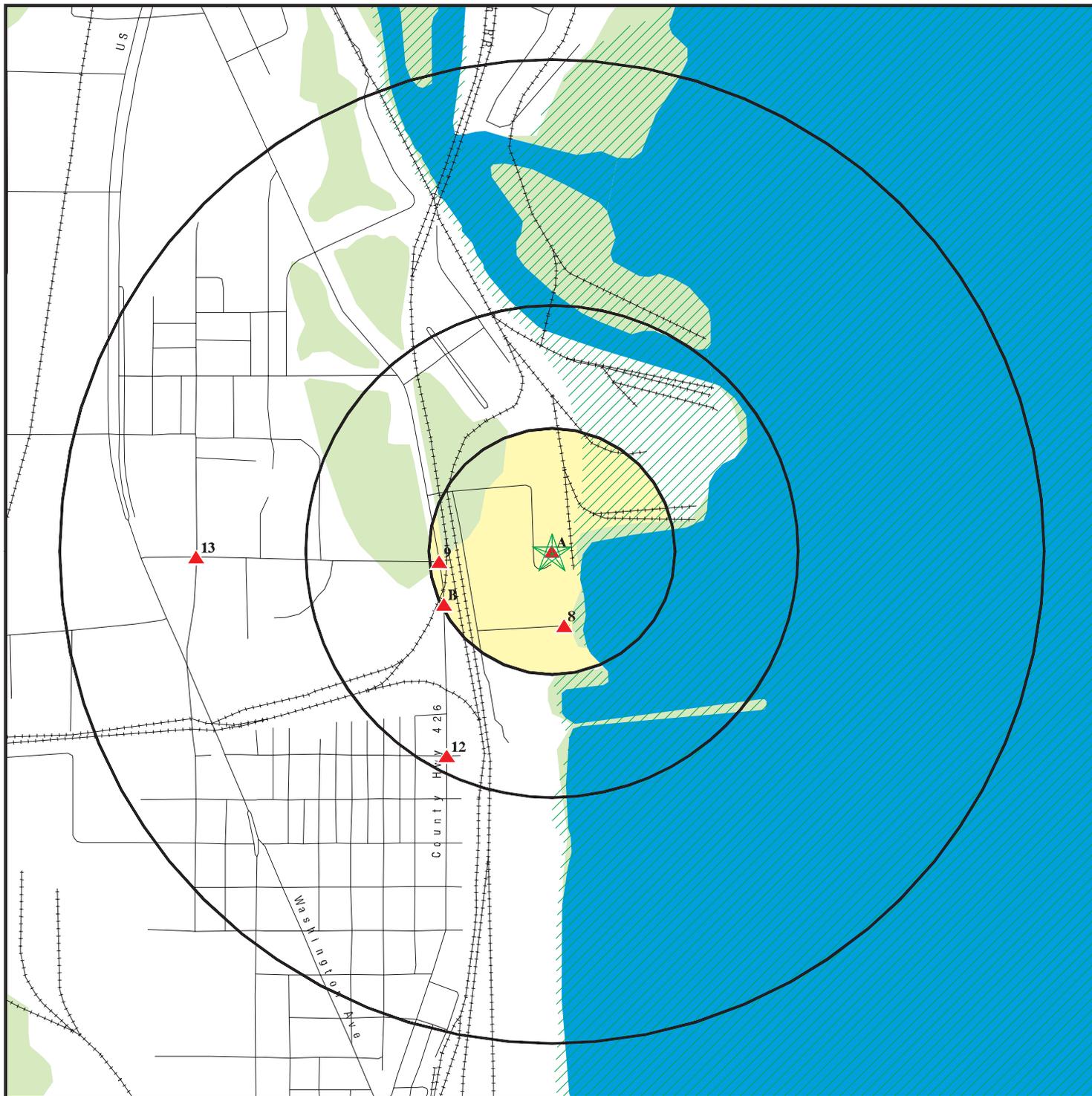
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ORE DOCK	1600 SHERIDAN ROAD	SSW 1/4 - 1/2 (0.467 mi.)	12	19

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
GLADSTONE DUMP CITY OF	SHWS
US DEPT OF DEFENSE DFSP ESCANABA	CERCLIS, FINDS, ROD
SODERGREN'S STORE	CERC-NFRAP
BERO MOTORS INC	LUST, UST
ESCANABA SCHOOLS GARAGE	LUST, UST
ALGER CT AIRPORT-FEDERAL FOREST	LUST, UST
MARATHON SERVICE	LUST, UST
US FOREST SERV DUKES EXPERINTAL	LUST, UST
JOHNSON SAW MILL	UST
DECOCK BOTTLE GAS	AST
DECOCK BOTTLE GAS	AST
DECOCK BOTTLED GAS	AST
ALLEGHENY INDUSTRIAL ELECTRICAL CO	FINDS, RCRA-NonGen
RUST ENGINEERING CO	FINDS, RCRA-NonGen
SHELL OIL TERMINAL ESCANABA	FINDS, RCRA-NonGen
C REISS COAL CO	FINDS, RCRA-NonGen
DITTRICHS COLLISION LLC	RCRA-CESQG
PETE'S AUTO WRECKING	RCRA-CESQG
UNIVERSAL TRUCK & AUTO	RCRA-CESQG
BERO MOTORS	RCRA-CESQG

OVERVIEW MAP - 2603948.2s



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

- 0 1/4 1/2 1 Miles
- Indian Reservations BIA
- ▲ Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

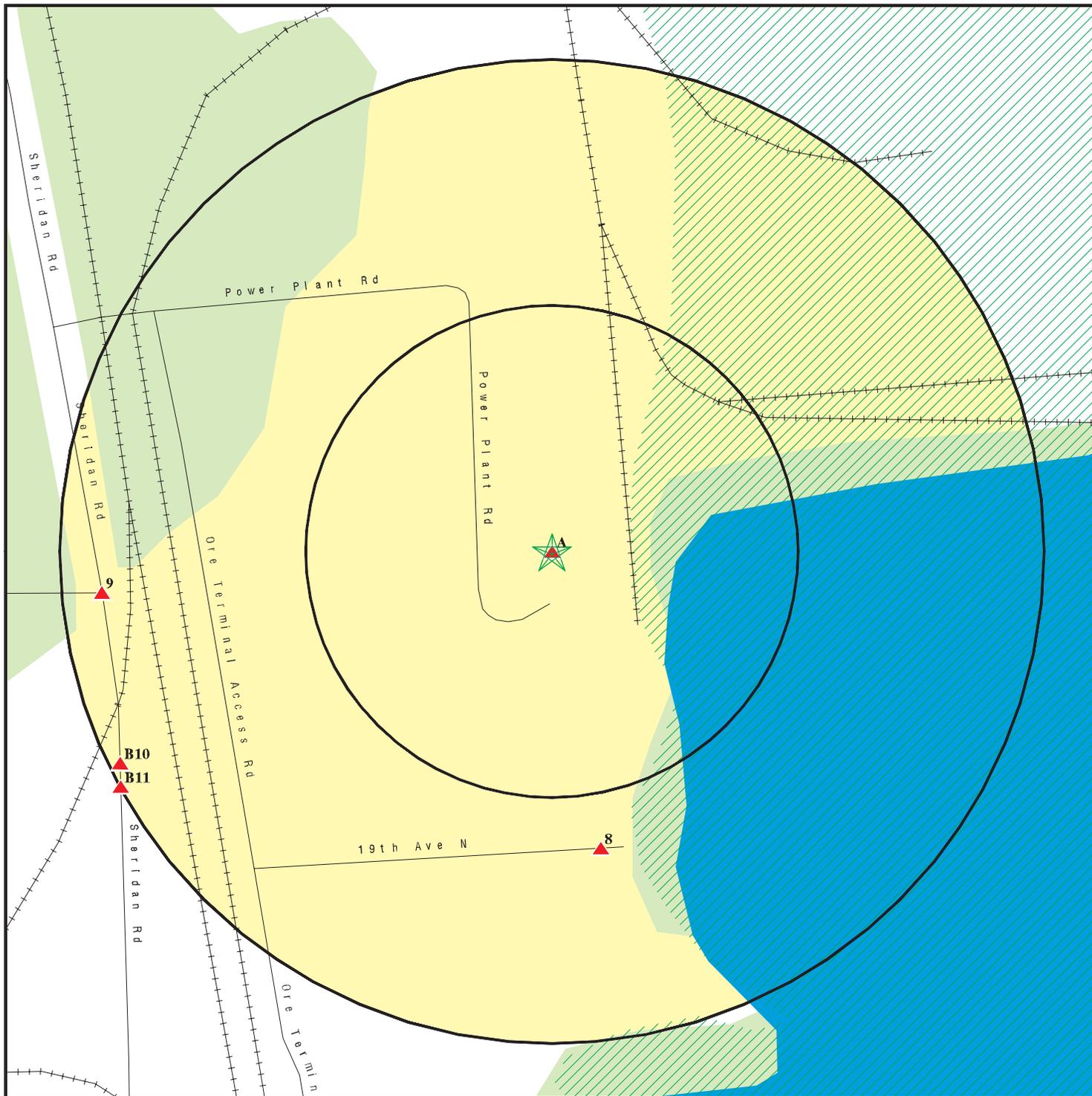


This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Escanaba Power Plant
 ADDRESS: 2000 Power Plant Dr.
 Escanaba MI 49829
 LAT/LONG: 45.7720 / 87.0647

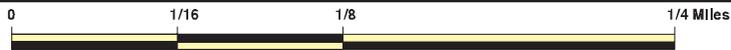
CLIENT: ECT
 CONTACT: Dirk Mammen
 INQUIRY #: 2603948.2s
 DATE: October 26, 2009 1:28 pm

DETAIL MAP - 2603948.2s



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

- Indian Reservations BIA
- ▲ Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Escanaba Power Plant
 ADDRESS: 2000 Power Plant Dr.
 Escanaba MI 49829
 LAT/LONG: 45.7720 / 87.0647

CLIENT: ECT
 CONTACT: Dirk Mammen
 INQUIRY #: 2603948.2s
 DATE: October 26, 2009 1:29 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL		1.000	0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
CERCLIS		0.500	0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site List</i>								
CERC-NFRAP		0.500	0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS		1.000	0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF		0.500	0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG		0.250	0	0	NR	NR	NR	0
RCRA-SQG		0.250	0	0	NR	NR	NR	0
RCRA-CESQG		0.250	0	2	NR	NR	NR	2
<i>Federal institutional controls / engineering controls registries</i>								
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS		TP	NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS		1.000	0	0	0	1	NR	1
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF		0.500	0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST		0.500	0	0	0	NR	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
UST	X	0.250	0	1	NR	NR	NR	1
AST	X	0.250	0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN UST		0.250	0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP		0.500	0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS		0.500	0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI		0.500	0	0	0	NR	NR	0
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
HIST LF		0.500	0	0	0	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		TP	NR	NR	NR	NR	NR	0
DEL SHWS		1.000	0	0	0	0	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS		TP	NR	NR	NR	NR	NR	0
SPILLS		TP	NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		0.250	0	1	NR	NR	NR	1
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS	X	TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
ICIS		TP	NR	NR	NR	NR	NR	0
PADS	X	TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS	X	TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
UIC		TP	NR	NR	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
NPDES	X	TP	NR	NR	NR	NR	NR	0
AIRS	X	TP	NR	NR	NR	NR	NR	0
BEA		0.500	0	0	1	NR	NR	1
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
COAL ASH		0.500	0	0	0	NR	NR	0

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants		1.000	0	0	0	0	NR	0
-------------------------	--	-------	---	---	---	---	----	---

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A1 CITY OF ESCANABA GENERATING STATION
Target 2000 POWER PLANT RD
Property ESCANABA, MI 49829

AST A100212777
N/A

Site 1 of 7 in cluster A

Actual:
588 ft.

AST:
Type: ACTIVE
Owner Name: City of Escanaba
Owner Address: PO Box 948
Owner City,St,Zip: Escanaba, MI 49829-0948
Owner County: USA
Owner Contact: Not reported
Owner Telephone: (906) 786-4141
Facility ID: 91084427
District: Upper Peninsula Dist. Office
Contact: Pat Fulsher
Facility Phone: 906-786-2321
Tank ID: 1
Tank Status: Currently In Use
Capacity: 100000
Install Date: Jul 10 2002
Close Date: Not reported
Content: # 2 Foil
Latitude: 45.7714300000
Longitude: -87.0652720000
Date of Collection: 03-05-2005
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Description of Category: Plant Entrance (Freight)
Method of Collection: GPS Code Meas. Standard P

A2 CITY OF ESCANABA
Target 2000 POWER PLANT RD
Property ESCANABA, MI 49829

AIRS S107696808
N/A

Site 2 of 7 in cluster A

Actual:
588 ft.

AIRS:
State Registration Number: B1573
Naics Code: Not reported
Contact Name: ROBERT HEADDEN
Contact Phone: (906) 786-0061
Contact Address: CITY OF ESCANABA
Contact Address 2: 1711 SHERIDAN RD
Contact City,St,Zip: ESCANABA, MI 49829
Permit Number: 362-01
Date Received: 12/03/01
State Registration Number: B1573
Country: Not reported
RID: Not reported
Application Reason: PEAKING GENERATOR & OIL STORAGE TANK
Record Type: Not reported
State County FIPS: Not reported
Facility Category: Not reported
SIC Primary: Not reported
Site Description: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF ESCANABA (Continued)

S107696808

NTI Site ID: Not reported
Dunn&Bradstreet No: Not reported
TRIID: Not reported
Submittal Flag: Not reported
Tribal Code: Not reported
EI Year: Not reported

A3 **ESCANABA GENERATING STATION**
Target **2000 POWER PLANT RD**
Property **ESCANABA, MI 49829**

TRIS **1005449594**
49829PPRPN20

Site 3 of 7 in cluster A

Actual:
588 ft.

A4 **POWER PLANT LOCATION**
Target **NORTH ESCANABA**
Property **ESCANABA, MI 49829**

UST **U003324889**
N/A

Site 4 of 7 in cluster A

Actual:
588 ft.

UST:
Facility ID: 00021422
Facility Type: CLOSED
Latitude: Not reported
Longitude: Not reported
Owner Name: Gallagher Marine Const. Co Inc
Owner Address: 2400 Lake Shore Dr
Owner City,St,Zip: Escanaba, MI 49829-1950
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (906) 789-1122
Contact: DON BICHLER
Contact Phone: (906) 789-1122
Date of Collection: Not reported
Accuracy: Not reported
Accuracy Value Unit: Not reported
Horizontal Datum: Not reported
Source: Not reported
Point Line Area: Not reported
Desc Category: Not reported
Method of Collection: Not reported

Tank ID: 1
Tank Status: **Removed from Ground**
Capacity: 3000
Install Date: Mar 27 1975
Product: Diesel
Remove Date: Jul 16 1992
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

POWER PLANT LOCATION (Continued)

U003324889

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 3000
Install Date: Mar 27 1975
Product: Diesel
Remove Date: Jul 16 1992
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

**A5
Target
Property**

**UPPER PENINSULA POWER ESCANABA GENERATING STATION
2000 POWER PLANT ROAD
ESCANABA, MI 49829**

**PADS 1004533333
FINDS MID155780976**

Site 5 of 7 in cluster A

**Actual:
588 ft.**

FINDS:

Registry ID: 110000412321

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

CAMDBS (Clean Air Markets Division Business System) is a national information system that supports the implementation of market-based air pollution control programs administered by the Clean Air Markets Division, within the Office of Air and Radiation. These programs include the Acid Rain Program, established by Title IV of the Clean Air Act Amendments of 1990, and regional programs designed reduce the transport of ozone. These emissions trading programs allows regulated facilities (primarily electric utilities) to adopt the most cost-effective strategies to reduce emissions at their units. Units that reduce their emissions below the number of allowances they hold -- each allowance is equivalent to one ton of sulfur dioxide or nitrogen oxides -- may trade allowances with other units in their system, sell them to other utilities on the open market or through EPA auctions, or bank them to cover emissions in future years. CAMDBS functions include registering responsible officials, establishing allowance accounts, reporting hourly emissions data, and transferring allowances between accounts.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

UPPER PENINSULA POWER ESCANABA GENERATING STATION (Continued)

1004533333

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

US Emissions & Generation Resource Database (EGRID) contains data on emissions and resource mix for virtually every power plant and company that generates electricity in the United States.

PCS (Permit Compliance System) is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

**A6
 Target
 Property**

**ESCANABA GENERATING STATION
 2000 POWER PLANT RD NORTH
 ESCANABA, MI 49931**

**UST U003324395
 N/A**

Site 6 of 7 in cluster A

**Actual:
 588 ft.**

UST:
 Facility ID: 00019418
 Facility Type: CLOSED
 Latitude: Not reported
 Longitude: Not reported
 Owner Name: Upper Peninsula Power Co
 Owner Address: PO Box 130
 Owner City,St,Zip: Houghton, MI 49931-0130
 Owner Country: USA
 Owner Contact: Not reported
 Owner Phone: (906) 553-2186
 Contact: HOMER REMSBERG
 Contact Phone: (906) 786-2321
 Date of Collection: Not reported
 Accuracy: Not reported
 Accuracy Value Unit: Not reported
 Horizontal Datum: Not reported
 Source: Not reported
 Point Line Area: Not reported
 Desc Category: Not reported
 Method of Collection: Not reported

Tank ID: 1
Tank Status: Removed from Ground
 Capacity: 1000
 Install Date: Apr 28 1958
 Product: Diesel
 Remove Date: Nov 20 1990
 Tank Release Detection: Not reported
 Pipe Release Detection: Not reported
 Piping Material: Galvanized Steel
 Piping Type: Not reported
 Constr Material: Asphalt Coated or Bare Steel
 Impressed Device: No

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

A7
Target
Property

ESCANABA MUNICIPAL ELECTRIC UTILITY
2000 POWER PLANT ROAD
ESCANABA, MI 49829

NPDES **S107791904**
N/A

Site 7 of 7 in cluster A

Actual:
588 ft.

MI NPDES:
Permit Number: MI0026697
Permittee PO Box: N
Permittee Email: Not reported
Issue Date: 4/10/2002
Effective Date: 7/1/2002
Expiration Date: 10/1/2006
Permittee Name: City of Escanaba
Permittee Address: 1711 Sheridan Road
Permittee Addr2: Not reported
Permittee City,St,Zip: Escanaba, MI 49829
Permit Type: IP
Facility Name 2: Not reported
Facility Name 3: Not reported
Facility Name 4: Not reported
Designated Name: Escanaba Mun Elect Utility
Latitude: 45.770833000000003
Lat Direction: N
Lat Type Code: LAT
Longitude: -87.066665999999998
Lon Direction: W
Lon Type Code: LON
Hydrologic Unit Code: 4030111

8
South
1/8-1/4
0.153 mi.
806 ft.

H J MANUFACTURING INC
3707 19TH AVE N
ESCANABA, MI 49829

RCRA-NonGen **1007097390**
MIK349498113

Relative:
Higher

RCRA-NonGen:
Date form received by agency: 02/05/2007
Facility name: H J MANUFACTURING INC
Facility address: 3707 19TH AVE N
ESCANABA, MI 49829
EPA ID: MIK349498113
Contact: KEITH SODERMAN
Contact address: 3707 19TH AVE N
ESCANABA, MI 49829
Contact country: Not reported
Contact telephone: (906) 233-1500
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Actual:
589 ft.

Owner/Operator Summary:
Owner/operator name: JEAN ROSS
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

H J MANUFACTURING INC (Continued)

1007097390

Owner/Operator Type: Owner
Owner/Op start date: 08/01/2006
Owner/Op end date: Not reported

Owner/operator name: JEAN ROSS
Owner/operator address: Not reported
Not reported

Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 08/01/2006
Owner/Op end date: Not reported

Owner/operator name: HAROLD ROSS
Owner/operator address: Not reported
Not reported

Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 08/01/2006
Owner/Op end date: Not reported

Owner/operator name: HAROLD ROSS
Owner/operator address: Not reported
Not reported

Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 08/01/2006
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

H J MANUFACTURING INC (Continued)

1007097390

Waste type: MERCURY THERMOMETERS
 Accumulated waste on-site: No
 Generated waste on-site: No

Waste type: MERCURY SWITCHES
 Accumulated waste on-site: No
 Generated waste on-site: No

Waste type: Batteries
 Accumulated waste on-site: No
 Generated waste on-site: No

Waste type: Lamps
 Accumulated waste on-site: No
 Generated waste on-site: No

Waste type: Pesticides
 Accumulated waste on-site: No
 Generated waste on-site: No

Waste type: Thermostats
 Accumulated waste on-site: No
 Generated waste on-site: No

Historical Generators:

Date form received by agency: 01/02/2002
 Facility name: H J MANUFACTURING INC
 Classification: Not a generator, verified

Violation Status: No violations found

9
West
1/8-1/4
0.230 mi.
1212 ft.

MEAD WOOLANDS TRUCK GARAGE
1800 20TH AVE N
ESCANABA, MI 49829

FINDS 1000866018
RCRA-CESQG MID985661669

Relative:
Higher

FINDS:

Registry ID: 110003682408

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

RCRA-CESQG:

Date form received by agency: 05/05/1993
 Facility name: MEAD WOOLANDS TRUCK GARAGE
 Facility address: 1800 20TH AVE N
 ESCANABA, MI 49829
 EPA ID: MID985661669
 Contact: KATHY JACOBI
 Contact address: 1800 20TH AVE N

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MEAD WOOLANDS TRUCK GARAGE (Continued)

1000866018

ESCANABA, MI 49829
Contact country: Not reported
Contact telephone: (906) 786-1660
Contact email: Not reported
EPA Region: 05
Land type: Private
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: MEAD CORP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: MEAD CORP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MEAD WOOLANDS TRUCK GARAGE (Continued)

1000866018

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 08/17/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

B10 CITY OF ESCANABA
WSW 1715 SHERIDAN RD
1/8-1/4 ESCANABA, MI 49829
0.244 mi.
1290 ft. Site 1 of 2 in cluster B

FINDS 1000865562
RCRA-CESQG MI0000074989

Relative:
Higher

FINDS:

Registry ID: 110003561039

Actual:
611 ft.

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF ESCANABA (Continued)

1000865562

program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

RCRA-CESQG:

Date form received by agency: 09/14/2001
Facility name: CITY OF ESCANABA
Facility address: 1715 SHERIDAN RD
ESCANABA, MI 49829
EPA ID: MI0000074989
Mailing address: PO BOX 948
ESCANABA, MI 49829
Contact: ROBERT LAFAVE
Contact address: 1715 SHERIDAN RD
ESCANABA, MI 49829
Contact country: Not reported
Contact telephone: (906) 786-1842
Contact email: Not reported
EPA Region: 05
Land type: Municipal
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: ESCANABA CITY OF
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Municipal
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: ESCANABA CITY OF
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF ESCANABA (Continued)

1000865562

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:

Date form received by agency: 07/15/1996
Facility name: CITY OF ESCANABA
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/07/1993
Facility name: CITY OF ESCANABA
Classification: Conditionally Exempt Small Quantity Generator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF ESCANABA (Continued)

1000865562

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 11/07/2001
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/17/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

B11
WSW
1/8-1/4
0.249 mi.
1317 ft.

FUELING STATION
1711 SHERIDAN RD
ESCANABA, MI 49829

UST U003330307
N/A

Site 2 of 2 in cluster B

Relative:
Higher

UST:

Actual:
611 ft.

Facility ID: 00036134
Facility Type: ACTIVE
Latitude: 45.7673970000
Longitude: -87.0697880000
Owner Name: City of Escanaba
Owner Address: PO Box 948
Owner City,St,Zip: Escanaba, MI 49829-0948
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (906) 786-4141
Contact: TOM PENEGOR
Contact Phone: (906) 786-3279
Date of Collection: 21-10-2003
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: GPS Code Meas. Standard Positioning Service SA Off

Tank ID: 1
Tank Status: Currently In Use
Capacity: 10000
Install Date: Dec 1 1991
Product: Gasoline
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging,Inter Monitoring Double Walled Tank
Pipe Release Detection: Interstitial Monitoring Double Walled Piping
Piping Material: Double Walled,Fiberglass reinforced plastic
Piping Type: Suction: No Valve At Tank
Constr Material: Cathodically Protected Steel
Impressed Device: No

Tank ID: 2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FUELING STATION (Continued)

U003330307

Tank Status: Currently In Use
Capacity: 10000
Install Date: Dec 1 1991
Product: Diesel
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging
Pipe Release Detection: Interstitial Monitoring Double Walled Piping
Piping Material: Double Walled, Fiberglass reinforced plastic
Piping Type: Suction: No Valve At Tank
Constr Material: Cathodically Protected Steel
Impressed Device: No

12
SSW
1/4-1/2
0.467 mi.
2467 ft.

ORE DOCK
1600 SHERIDAN ROAD
ESCANABA, MI 49829

BEA S106896438
N/A

Relative:
Higher

BEA:
Secondary Address: Not reported
BEA Number: 318
District: Upper Peninsula
Date Received: 9/23/2003 12:59:00 AM
Submitter Name: Sault Ste. Marie Bridge Company
Petition Determination: No Request
Petition Disclosure: 0
Category: Same Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: makil
Division Assigned: Environmental Response Division

Actual:
619 ft.

13
West
1/2-1
0.723 mi.
3816 ft.

ESCANABA SCHOOLS BUS GARAGE #2
2220 20TH AVENUE
ESCANABA, MI 49829

SHWS S109029610
N/A

Relative:
Higher

SHWS:
Facility ID: 21000074
Facility Status: See Leaking Underground Storage Tank Site Database
Source: Elementary/Secondary Schools
SAM Score: 28 out o
SAM Score Date: 10/12/2006
Township: Not reported
Range: Not reported
Section: Not reported
Quarter: Not reported
Quarter/Quarter: Not reported
Pollutants: Not reported

Actual:
629 ft.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
COOKS	A100151113	DECOCK BOTTLE GAS	11830 WEST HWY-2	49829	AST
ESCANABA	1003871053	SODERGREN'S STORE	RR 1 HWY 414	49829	CERC-NFRAP
ESCANABA	U004108517	BERO MOTORS INC	5273 HWY 2 & 41	49829	LUST, UST
ESCANABA	U003160696	ESCANABA SCHOOLS GARAGE	2220 NORTH 20TH STREET	49829	LUST, UST
ESCANABA	1007098467	DITTRICH'S COLLISION LLC	4665 US HIGHWAY 2 41	49829	RCRA-CESQG
ESCANABA	1007264503	PETE'S AUTO WRECKING	4113 US HIGHWAY 2 41	49829	RCRA-CESQG
ESCANABA	1007370837	UNIVERSAL TRUCK & AUTO	4587 US HIGHWAY 2 41	49829	RCRA-CESQG
ESCANABA	1008403402	BERO MOTORS	5273 US HIGHWAY 2 41	49829	RCRA-CESQG
ESCANABA	1000202444	ALLEGHENY INDUSTRIAL ELECTRICAL CO	MEAD RD & HWY 35 US2 US 41	49829	FINDS, RCRA-NonGen
ESCANABA	1000391929	RUST ENGINEERING CO	MEAD RD HWY M35 US 2 US 41	49829	FINDS, RCRA-NonGen
ESCANABA	1001817637	SHELL OIL TERMINAL ESCANABA	1000 POWER PLANT RD	49829	FINDS, RCRA-NonGen
ESCANABA	1006808439	C REISS COAL CO	POWER PLANT RD	49829	FINDS, RCRA-NonGen
ESCANABA	A100252776	DECOCK BOTTLE GAS	6731 HWY US-2 & M-35	49829	AST
GLADSTONE	S103085849	GLADSTONE DUMP CITY OF	ADRESS UNREPORTED	49837	SHWS
GWINN	A100172362	DECOCK BOTTLED GAS	1170 EAST HWY M-35	49829	AST
HERMANVILLE	U003320324	JOHNSON SAW MILL	HWY 2 HERMANVILLE	49829	UST
MUNISING	U003324498	ALGER CT AIRPORT-FEDERAL FOREST	HIGHWAY 13	49829	LUST, UST
RAPID RIVER	U003320567	MARATHON SERVICE	7932 HWY US-2	49829	LUST, UST
SKANDIA	U003325891	US FOREST SERV DUKES EXPERINTAL	STATE HWY M-94	49829	LUST, UST
WELLS TWP	1000187557	US DEPT OF DEFENSE DFSP ESCANABA	US HWY 41	49837	CERCLIS, FINDS, ROD

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 06/29/2009	Source: EPA
Date Data Arrived at EDR: 07/31/2009	Telephone: N/A
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 10/14/2009
Number of Days to Update: 52	Next Scheduled EDR Contact: 01/25/2010
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 06/29/2009	Source: EPA
Date Data Arrived at EDR: 07/31/2009	Telephone: N/A
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 10/14/2009
Number of Days to Update: 52	Next Scheduled EDR Contact: 01/25/2010
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/17/2009
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/16/2009
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 06/29/2009	Source: EPA
Date Data Arrived at EDR: 07/31/2009	Telephone: N/A
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 10/14/2009
Number of Days to Update: 52	Next Scheduled EDR Contact: 01/25/2010
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 06/30/2009	Source: EPA
Date Data Arrived at EDR: 08/11/2009	Telephone: 703-412-9810
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 09/30/2009
Number of Days to Update: 41	Next Scheduled EDR Contact: 01/11/2010
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 06/23/2009	Source: EPA
Date Data Arrived at EDR: 09/02/2009	Telephone: 703-412-9810
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 09/09/2009
Number of Days to Update: 19	Next Scheduled EDR Contact: 12/14/2009
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/30/2009	Source: EPA
Date Data Arrived at EDR: 07/01/2009	Telephone: 800-424-9346
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 08/31/2009
Number of Days to Update: 82	Next Scheduled EDR Contact: 11/30/2009
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Transporters, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 10/07/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 10/07/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 10/07/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 10/07/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/31/2009
Date Data Arrived at EDR: 04/22/2009
Date Made Active in Reports: 05/05/2009
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 09/18/2009
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/31/2009
Date Data Arrived at EDR: 04/22/2009
Date Made Active in Reports: 05/05/2009
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 09/18/2009
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 05/15/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 62

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 10/06/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: Contaminated Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 08/11/2009
Date Data Arrived at EDR: 08/18/2009
Date Made Active in Reports: 08/26/2009
Number of Days to Update: 8

Source: Department of Environmental Quality
Telephone: 517-373-9541
Last EDR Contact: 08/18/2009
Next Scheduled EDR Contact: 11/16/2009
Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 07/21/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 07/24/2009
Number of Days to Update: 3

Source: Department of Environmental Quality
Telephone: 517-335-4035
Last EDR Contact: 10/05/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 09/01/2009
Date Data Arrived at EDR: 09/04/2009
Date Made Active in Reports: 10/05/2009
Number of Days to Update: 31

Source: Department of Environmental Quality
Telephone: 517-373-9837
Last EDR Contact: 09/04/2009
Next Scheduled EDR Contact: 12/07/2009
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/24/2009	Source: EPA Region 8
Date Data Arrived at EDR: 09/10/2009	Telephone: 303-312-6271
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 08/17/2009
Number of Days to Update: 42	Next Scheduled EDR Contact: 11/16/2009
	Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/24/2009	Source: EPA Region 7
Date Data Arrived at EDR: 05/20/2009	Telephone: 913-551-7003
Date Made Active in Reports: 06/17/2009	Last EDR Contact: 08/21/2009
Number of Days to Update: 28	Next Scheduled EDR Contact: 11/16/2009
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 08/24/2009	Source: EPA Region 6
Date Data Arrived at EDR: 08/26/2009	Telephone: 214-665-6597
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 08/17/2009
Number of Days to Update: 26	Next Scheduled EDR Contact: 11/16/2009
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/19/2009	Source: EPA Region 1
Date Data Arrived at EDR: 02/19/2009	Telephone: 617-918-1313
Date Made Active in Reports: 03/16/2009	Last EDR Contact: 08/17/2009
Number of Days to Update: 25	Next Scheduled EDR Contact: 11/16/2009
	Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 08/21/2009	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/06/2009	Telephone: 415-972-3372
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 08/17/2009
Number of Days to Update: 16	Next Scheduled EDR Contact: 11/16/2009
	Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 08/20/2009	Source: EPA Region 10
Date Data Arrived at EDR: 08/21/2009	Telephone: 206-553-2857
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 08/17/2009
Number of Days to Update: 31	Next Scheduled EDR Contact: 11/16/2009
	Data Release Frequency: Quarterly

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 08/20/2009	Source: EPA Region 4
Date Data Arrived at EDR: 08/26/2009	Telephone: 404-562-8677
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 08/17/2009
Number of Days to Update: 57	Next Scheduled EDR Contact: 11/16/2009
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal registered storage tank lists

UST: Underground Storage Tank Facility List

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 09/01/2009
Date Data Arrived at EDR: 09/04/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 27

Source: Department of Environmental Quality
Telephone: 517-335-4035
Last EDR Contact: 09/04/2009
Next Scheduled EDR Contact: 12/07/2009
Data Release Frequency: Annually

AST: Aboveground Tanks

Registered Aboveground Storage Tanks.

Date of Government Version: 09/15/2009
Date Data Arrived at EDR: 09/22/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 9

Source: Department of Environmental Quality
Telephone: 517-373-8168
Last EDR Contact: 09/08/2009
Next Scheduled EDR Contact: 12/07/2009
Data Release Frequency: No Update Planned

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 09/08/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 10/16/2008
Number of Days to Update: 27

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/22/2009
Next Scheduled EDR Contact: 11/16/2009
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 08/24/2009
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 26

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 08/17/2009
Next Scheduled EDR Contact: 11/16/2009
Data Release Frequency: Semi-Annually

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 08/20/2009
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 57

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 08/17/2009
Next Scheduled EDR Contact: 11/16/2009
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 25

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 08/17/2009
Next Scheduled EDR Contact: 11/16/2009
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 08/20/2009	Source: EPA Region 10
Date Data Arrived at EDR: 08/21/2009	Telephone: 206-553-2857
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 08/17/2009
Number of Days to Update: 31	Next Scheduled EDR Contact: 11/16/2009
	Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2008	Source: EPA Region 7
Date Data Arrived at EDR: 12/30/2008	Telephone: 913-551-7003
Date Made Active in Reports: 03/16/2009	Last EDR Contact: 08/21/2009
Number of Days to Update: 76	Next Scheduled EDR Contact: 11/16/2009
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/24/2009	Source: EPA Region 8
Date Data Arrived at EDR: 09/10/2009	Telephone: 303-312-6137
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 08/17/2009
Number of Days to Update: 42	Next Scheduled EDR Contact: 11/16/2009
	Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 08/21/2009	Source: EPA Region 9
Date Data Arrived at EDR: 08/26/2009	Telephone: 415-972-3368
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 08/17/2009
Number of Days to Update: 57	Next Scheduled EDR Contact: 11/16/2009
	Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008	Source: EPA, Region 1
Date Data Arrived at EDR: 04/22/2008	Telephone: 617-918-1102
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 10/05/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/18/2010
	Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

State and tribal Brownfields sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

BROWNFIELDS: Brownfields and USTfield Site Database

All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 09/21/2009
Date Data Arrived at EDR: 09/21/2009
Date Made Active in Reports: 10/05/2009
Number of Days to Update: 14

Source: Department of Environmental Quality
Telephone: 517-373-4805
Last EDR Contact: 09/14/2009
Next Scheduled EDR Contact: 11/30/2009
Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations

A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detroit Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 05/01/2007
Number of Days to Update: 21

Source: Economic Development Corporation
Telephone: 888-522-0103
Last EDR Contact: 09/15/2009
Next Scheduled EDR Contact: 12/21/2009
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 10/01/2008
Date Data Arrived at EDR: 11/14/2008
Date Made Active in Reports: 12/23/2008
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/11/2009
Next Scheduled EDR Contact: 01/11/2010
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-972-3336
Last EDR Contact: 09/23/2009
Next Scheduled EDR Contact: 12/21/2009
Data Release Frequency: Varies

HIST LF: Inactive Solid Waste Facilities

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Department of Environmental Quality
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 08/26/2009
Next Scheduled EDR Contact: 11/23/2009
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/01/2009
Date Data Arrived at EDR: 06/22/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 91

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/26/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: Quarterly

DEL SHWS: Delisted List of Contaminated Sites

Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does not support it's listing or the site no longer meets criteria specified in rules.

Date of Government Version: 08/20/2009
Date Data Arrived at EDR: 08/21/2009
Date Made Active in Reports: 08/26/2009
Number of Days to Update: 5

Source: Department of Environmental Quality
Telephone: 517-373-9541
Last EDR Contact: 08/17/2009
Next Scheduled EDR Contact: 11/16/2009
Data Release Frequency: Varies

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 10/20/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 11/21/2008
Number of Days to Update: 3

Source: Department of Community Health
Telephone: 517-373-3740
Last EDR Contact: 08/31/2009
Next Scheduled EDR Contact: 11/16/2009
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 11/19/2008	Telephone: 202-307-1000
Date Made Active in Reports: 03/30/2009	Last EDR Contact: 03/23/2009
Number of Days to Update: 131	Next Scheduled EDR Contact: 06/22/2009
	Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 08/18/2009	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/21/2009	Telephone: 202-564-6023
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 08/17/2009
Number of Days to Update: 31	Next Scheduled EDR Contact: 11/16/2009
	Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005	Source: Department of the Navy
Date Data Arrived at EDR: 12/11/2006	Telephone: 843-820-7326
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 09/08/2009
Number of Days to Update: 31	Next Scheduled EDR Contact: 12/07/2009
	Data Release Frequency: Varies

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 07/13/2009	Source: Department of Environmental Quality
Date Data Arrived at EDR: 08/17/2009	Telephone: 517-373-9837
Date Made Active in Reports: 08/26/2009	Last EDR Contact: 08/11/2009
Number of Days to Update: 9	Next Scheduled EDR Contact: 11/10/2008
	Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 07/16/2009	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 07/16/2009	Telephone: 202-366-4555
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 10/05/2009
Number of Days to Update: 67	Next Scheduled EDR Contact: 01/11/2010
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 09/21/2009
Date Data Arrived at EDR: 09/22/2009
Date Made Active in Reports: 10/05/2009
Number of Days to Update: 13

Source: Department of Environmental Quality
Telephone: 517-373-8427
Last EDR Contact: 09/22/2009
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 10/07/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 05/14/2008
Date Data Arrived at EDR: 05/28/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 72

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 08/27/2009
Next Scheduled EDR Contact: 11/23/2009
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 10/23/2009
Next Scheduled EDR Contact: 02/01/2010
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 09/05/2008
Date Made Active in Reports: 09/23/2008
Number of Days to Update: 18

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 09/30/2009
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 04/24/2009
Date Data Arrived at EDR: 05/19/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 125

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 10/06/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 09/01/2009	Source: EPA
Date Data Arrived at EDR: 09/22/2009	Telephone: 703-416-0223
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 09/22/2009
Number of Days to Update: 30	Next Scheduled EDR Contact: 12/28/2009
	Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 01/05/2009	Source: Department of Energy
Date Data Arrived at EDR: 05/07/2009	Telephone: 505-845-0011
Date Made Active in Reports: 05/08/2009	Last EDR Contact: 09/14/2009
Number of Days to Update: 1	Next Scheduled EDR Contact: 12/14/2009
	Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/28/2009	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 06/23/2009	Telephone: 303-231-5959
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 09/18/2009
Number of Days to Update: 90	Next Scheduled EDR Contact: 12/21/2009
	Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2007	Source: EPA
Date Data Arrived at EDR: 04/09/2009	Telephone: 202-566-0250
Date Made Active in Reports: 06/17/2009	Last EDR Contact: 09/14/2009
Number of Days to Update: 69	Next Scheduled EDR Contact: 12/14/2009
	Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002	Source: EPA
Date Data Arrived at EDR: 04/14/2006	Telephone: 202-260-5521
Date Made Active in Reports: 05/30/2006	Last EDR Contact: 10/07/2009
Number of Days to Update: 46	Next Scheduled EDR Contact: 01/11/2010
	Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 09/10/2009
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/14/2009
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 09/10/2009
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/14/2009
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2007	Source: EPA
Date Data Arrived at EDR: 05/19/2009	Telephone: 202-564-4203
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 09/29/2009
Number of Days to Update: 125	Next Scheduled EDR Contact: 01/11/2010
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 08/21/2009	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/27/2009	Telephone: 202-564-5088
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 09/28/2009
Number of Days to Update: 56	Next Scheduled EDR Contact: 01/11/2010
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 05/27/2009	Source: EPA
Date Data Arrived at EDR: 08/05/2009	Telephone: 202-566-0500
Date Made Active in Reports: 09/29/2009	Last EDR Contact: 10/21/2009
Number of Days to Update: 55	Next Scheduled EDR Contact: 02/01/2010
	Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/06/2009	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 07/13/2009	Telephone: 301-415-7169
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 09/21/2009
Number of Days to Update: 70	Next Scheduled EDR Contact: 12/28/2009
	Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/28/2009	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/28/2009	Telephone: 202-343-9775
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 10/16/2009
Number of Days to Update: 55	Next Scheduled EDR Contact: 01/25/2010
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/23/2009	Source: EPA
Date Data Arrived at EDR: 07/28/2009	Telephone: (312) 353-2000
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 09/18/2009
Number of Days to Update: 55	Next Scheduled EDR Contact: 12/28/2009
	Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 05/22/2009
Number of Days to Update: 92

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/09/2009
Next Scheduled EDR Contact: 12/07/2009
Data Release Frequency: Biennially

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 09/10/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/05/2009
Number of Days to Update: 25

Source: Department of Environmental Quality
Telephone: 517-241-1515
Last EDR Contact: 08/17/2009
Next Scheduled EDR Contact: 11/16/2009
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

Date of Government Version: 02/18/2009
Date Data Arrived at EDR: 03/17/2009
Date Made Active in Reports: 04/01/2009
Number of Days to Update: 15

Source: Department of Environmental Quality
Telephone: 517-335-4586
Last EDR Contact: 10/26/2009
Next Scheduled EDR Contact: 02/08/2010
Data Release Frequency: Varies

NPDES: List of Active NPDES Permits

General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

Date of Government Version: 07/28/2009
Date Data Arrived at EDR: 07/28/2009
Date Made Active in Reports: 08/18/2009
Number of Days to Update: 21

Source: Department of Environmental Quality
Telephone: 517-241-1300
Last EDR Contact: 10/14/2009
Next Scheduled EDR Contact: 01/25/2010
Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 05/22/2007
Date Data Arrived at EDR: 10/19/2007
Date Made Active in Reports: 11/05/2007
Number of Days to Update: 17

Source: Department of Environmental Quality
Telephone: 517-373-7074
Last EDR Contact: 10/05/2009
Next Scheduled EDR Contact: 01/11/2010
Data Release Frequency: Varies

BEA: BASELINE ENVIRONMENTAL ASSESSMENT DATABASE

A Baseline Environmental Assessment (BEA) allows people to purchase or begin operating at a facility without being held liable for existing contamination. BEAs are used to gather enough information about the property being transferred so that existing contamination can be distinguished from any new releases that might occur after the new owner or operator takes over the property.

Date of Government Version: 09/14/2009
Date Data Arrived at EDR: 09/14/2009
Date Made Active in Reports: 10/05/2009
Number of Days to Update: 21

Source: DEPT. OF ENVIRONMENTAL QUALITY
Telephone: 517-373-9541
Last EDR Contact: 09/08/2009
Next Scheduled EDR Contact: 12/07/2009
Data Release Frequency: Semi-Annually

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/23/2009
Next Scheduled EDR Contact: 02/01/2010
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 09/09/2009
Date Data Arrived at EDR: 09/09/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 10/26/2009
Next Scheduled EDR Contact: 02/08/2010
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 08/21/2009
Next Scheduled EDR Contact: 11/16/2009
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/23/2009
Next Scheduled EDR Contact: 02/01/2010
Data Release Frequency: N/A

COAL ASH: Coal Ash Disposal Sites

Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 07/07/2009
Date Data Arrived at EDR: 08/04/2009
Date Made Active in Reports: 08/18/2009
Number of Days to Update: 14

Source: Department of Environmental Quality
Telephone: 586-753-3754
Last EDR Contact: 10/26/2009
Next Scheduled EDR Contact: 01/25/2010
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 09/09/2009
Next Scheduled EDR Contact: 12/07/2009
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 05/05/2009
Date Made Active in Reports: 05/22/2009
Number of Days to Update: 17

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/20/2009
Next Scheduled EDR Contact: 02/01/2010
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 07/28/2009
Date Data Arrived at EDR: 08/27/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 25

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/27/2009
Next Scheduled EDR Contact: 11/23/2009
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 09/11/2008
Date Made Active in Reports: 10/02/2008
Number of Days to Update: 21

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 09/08/2009
Next Scheduled EDR Contact: 12/07/2009
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 06/01/2009
Date Data Arrived at EDR: 06/12/2009
Date Made Active in Reports: 06/29/2009
Number of Days to Update: 17

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 09/14/2009
Next Scheduled EDR Contact: 12/14/2009
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 07/17/2009
Date Made Active in Reports: 08/10/2009
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/24/2009
Next Scheduled EDR Contact: 01/04/2010
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: PennWell Corporation
Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes

Source: Bureau of REgulatory Services
Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Department of Natural Resources
Telephone: 517-241-2254

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

ESCANABA POWER PLANT
2000 POWER PLANT DR.
ESCANABA, MI 49829

TARGET PROPERTY COORDINATES

Latitude (North):	45.77200 - 45° 46' 19.2"
Longitude (West):	87.0647 - 87° 3' 52.9"
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	494969.4
UTM Y (Meters):	5068500.0
Elevation:	588 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	45087-G1 GLADSTONE, MI
Most Recent Revision:	1985

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

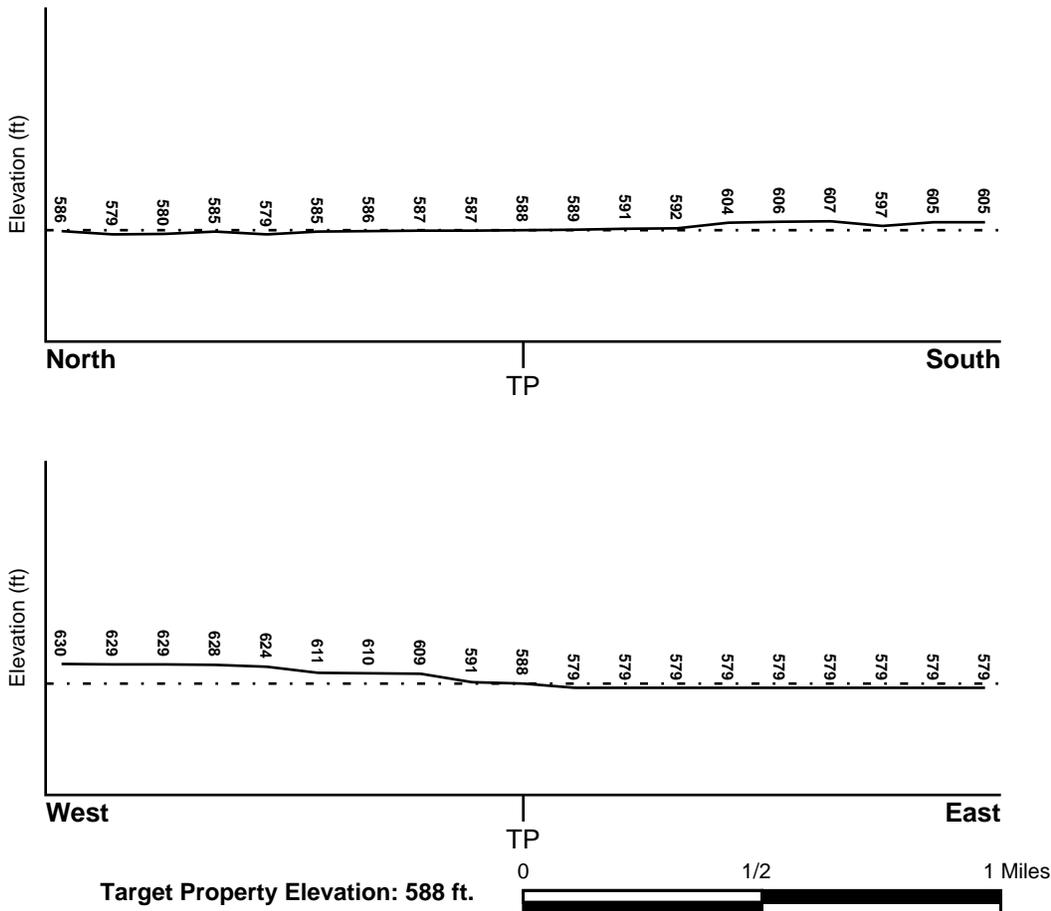
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Target Property County</u>	<u>FEMA Flood Electronic Data</u>
DELTA, MI	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 26041C0614C

Additional Panels in search area: 26041C0612C
26041C0616C
26041C0618C

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
GLADSTONE	Not Available

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era: Paleozoic
System: Ordovician
Series: Middle Ordovician (Mohawkian)
Code: O2 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: RUBICON

Soil Surface Texture: sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively. Soils have very high and high hydraulic conductivity and low water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: LOW

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	6 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 20.00 Min: 6.00	Max: 6.00 Min: 4.50
2	6 inches	18 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 20.00 Min: 6.00	Max: 6.00 Min: 4.50
3	18 inches	60 inches	sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 20.00 Min: 6.00	Max: 6.50 Min: 4.50

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: fine sand
peat
muck
mucky-peat

Surficial Soil Types: fine sand
peat
muck
mucky-peat

Shallow Soil Types: muck

Deeper Soil Types: stratified
fine sand
mucky-peat
muck

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	USGS2357089	1/4 - 1/2 Mile NW
A2	USGS2357090	1/4 - 1/2 Mile NNW
D10	USGS2357085	1/2 - 1 Mile SW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
G20	MI2003321	1/2 - 1 Mile WNW

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

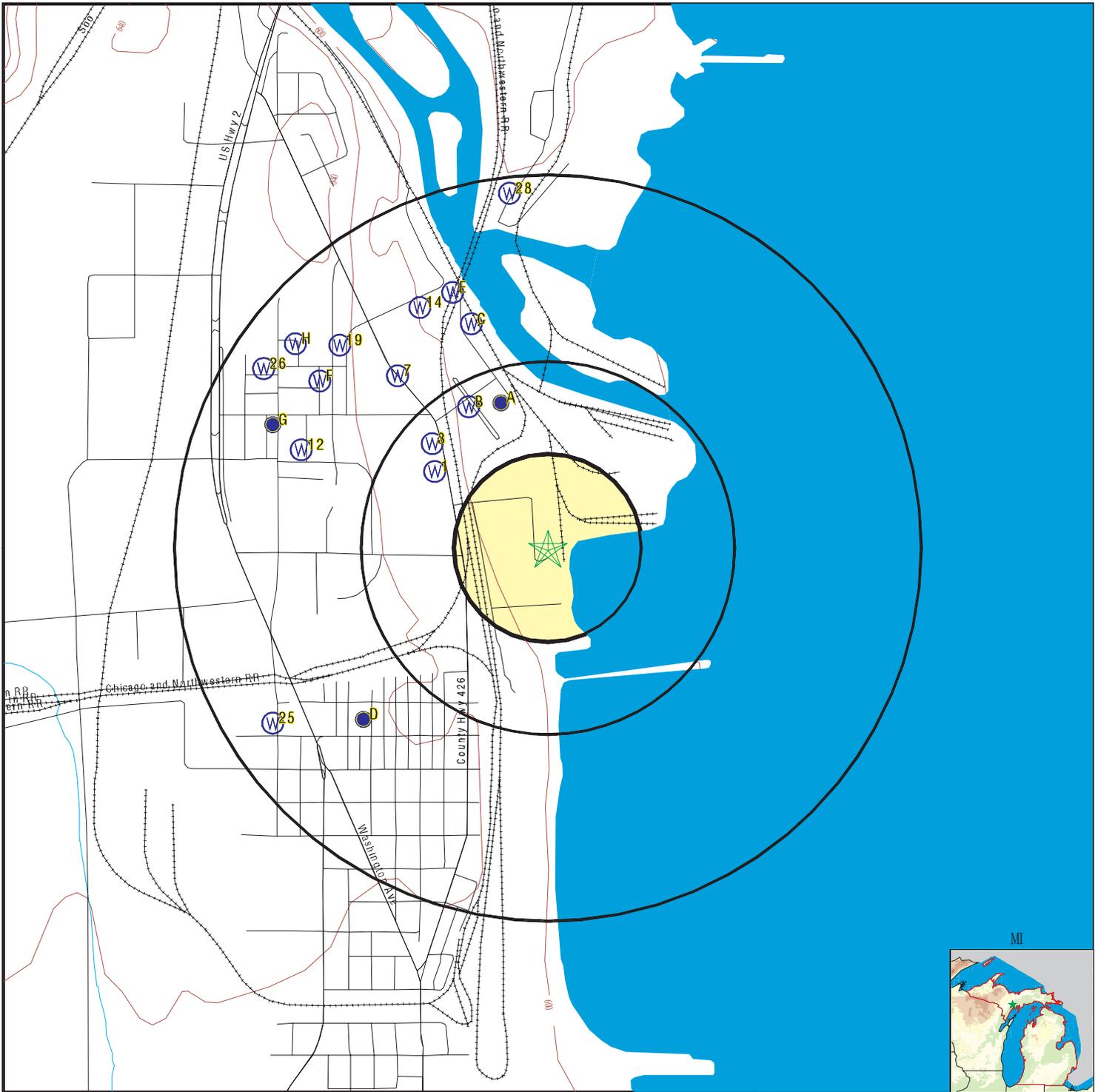
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
3	MI20054936	1/4 - 1/2 Mile NW
A4	MI20058718	1/4 - 1/2 Mile NNW
B5	MI20058860	1/4 - 1/2 Mile NNW
B6	MI20058699	1/4 - 1/2 Mile NNW
7	MI20058798	1/2 - 1 Mile NW
C8	MI20054937	1/2 - 1 Mile NNW
C9	MI20054935	1/2 - 1 Mile NNW
D11	MI20054947	1/2 - 1 Mile SW
12	MI20054941	1/2 - 1 Mile WNW
E13	MI20054939	1/2 - 1 Mile NNW
14	MI20054934	1/2 - 1 Mile NNW
E15	MI20054938	1/2 - 1 Mile NNW
F16	MI20054940	1/2 - 1 Mile NW
F17	MI20054943	1/2 - 1 Mile NW
F18	MI20054945	1/2 - 1 Mile NW
19	MI20054944	1/2 - 1 Mile NW
G21	MI20055247	1/2 - 1 Mile NNW
G22	MI20055248	1/2 - 1 Mile WNW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
H23	MI20054946	1/2 - 1 Mile NW
H24	MI20054933	1/2 - 1 Mile NW
25	MI20055373	1/2 - 1 Mile WSW
26	MI20055249	1/2 - 1 Mile WNW
H27	MI20054942	1/2 - 1 Mile NW
28	MI20054892	1/2 - 1 Mile North

PHYSICAL SETTING SOURCE MAP - 2603948.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Escanaba Power Plant
 ADDRESS: 2000 Power Plant Dr.
 Escanaba MI 49829
 LAT/LONG: 45.7720 / 87.0647

CLIENT: ECT
 CONTACT: Dirk Mammen
 INQUIRY #: 2603948.2s
 DATE: October 26, 2009 1:29 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1
NW
1/4 - 1/2 Mile
Higher

FED USGS USGS2357089

Agency cd:	USGS	Site no:	454630087041501
Site name:	39N 22W 18 01	EDR Site id:	USGS2357089
Latitude:	454630	Dec lat:	45.77496785
Longitude:	0870415	Coor meth:	M
Dec lon:	-87.07096965	Latlong datum:	NAD27
Coor accr:	M	District:	26
Dec latlong datum:	NAD83	County:	041
State:	26	Land net:	S18T39NR22WM
Country:	US	Map scale:	Not Reported
Location map:	Not Reported		
Altitude:	605		
Altitude method:	Reported		
Altitude accuracy:	10		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	TacooshWhitefish. Michigan. Area = 656 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	MUNISING SANDSTONE		
Well depth:	600	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1951-02-25
Water quality data end date:	1951-02-25	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

A2
NNW
1/4 - 1/2 Mile
Higher

FED USGS USGS2357090

Agency cd:	USGS	Site no:	454639087040201
Site name:	39N 22W 18AC 01	EDR Site id:	USGS2357090
Latitude:	454639	Dec lat:	45.7774678
Longitude:	0870402	Coor meth:	M
Dec lon:	-87.06735861	Latlong datum:	NAD27
Coor accr:	M	District:	26
Dec latlong datum:	NAD83	County:	041
State:	26	Land net:	S18T39NR22WM
Country:	US	Map scale:	Not Reported
Location map:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Altitude:	595		
Altitude method:	Reported		
Altitude accuracy:	10		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Escanaba. Michigan. Area = 935 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	MUNISING SANDSTONE		
Well depth:	665	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1930-06-16
Water quality data end date:	1952-02-05	Water quality data count:	4
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

**3
NW
1/4 - 1/2 Mile
Higher**

MI WELLS MI20054936

Wellid:	21000000692	Import id:	21392218004
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	JENSEN CHRIS		
Well addr:	6321 S. 3RD ST.		
Well depth:	70		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	586
Const date:	1981-05-30 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	67		
Screen frm:	0		
Screen to:	0		
Swl:	6		
Test depth:	70		
Test hours:	1		
Test rate:	16	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7760490224		
Longitude:	-87.0710991107		
Methd coll:	Interpolation-Map		
Elevation:	603.7		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	604	Elev dif:	0
Elev miv:	604	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	19
Pct aq d:	19	Pct aq r:	0
Pct maq:	4	Pct maq d:	0
Pct maq r:	100	Pct cm:	77

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	81	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	67
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	65
Pct maq 1:	0	Pct cm 1:	35
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.00031		
Vert Conduct:	.00013		
T2:	.0146		
D50plek:	.00294		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A4
NNW
1/4 - 1/2 Mile
Higher

MI WELLS MI20058718

Wellid:	21000004760	Import id:	Not Reported
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	Barbara Master		
Well addr:	6381 S. 1st St.		
Well depth:	204		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2283
Const date:	2000-09-25 00:00:00.000	Case type:	Steel-black
Case dia:	6		
Case depth:	76		
Screen frm:	0		
Screen to:	0		
Swl:	0		
Test depth:	190		
Test hours:	1		
Test rate:	1	Test methd:	Air
Grouted:	1	Pmp cpcity:	0
Latitude:	45.77780493		
Longitude:	-87.06723557		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	Not Reported	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	SWL = 0		
Elev dem:	587	Elev dif:	587
Elev miv:	0	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	19
Pct aq d:	49	Pct aq r:	3
Pct maq:	63	Pct maq d:	0
Pct maq r:	97	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	18	Pct pcm d:	51
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	71
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	75	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	25
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	29.41882		
Vert Conduct:	.01417		
T2:	1500.36		
D50plek:	130.3151		

**B5
NNW
1/4 - 1/2 Mile
Higher**

MI WELLS MI20058860

Wellid:	21000005314	Import id:	Not Reported
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	SUSAN LANAVILLE		
Well addr:	6387 S 2ND ST		
Well depth:	42		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	575
Const date:	2004-10-28 00:00:00.000	Case type:	Steel
Case dia:	6		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	40		
Screen frm:	37		
Screen to:	42		
Swl:	6		
Test depth:	37		
Test hours:	.5		
Test rate:	30	Test methd:	Air
Grouted:	1	Pmp cpcity:	10
Latitude:	45.77724		
Longitude:	-87.06922		
Methd coll:	GPS Code Meas. Std. Positioning Svc. SA Off		
Elevation:	577		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	597	Elev dif:	20
Elev miv:	577	Aq code:	Drift Well
Aq flag:	Not Reported	Pct aq:	0
Pct aq d:	0	Pct aq r:	0
Pct maq:	55	Pct maq d:	55
Pct maq r:	0	Pct cm:	12
Pct cm d:	12	Pct cm r:	0
Pct pcm:	29	Pct pcm d:	29
Pct pcm r:	0	Pct na:	5
Pct na d:	5	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	36	A pct aq2:	0
A pct maq2:	53	A pct pcm2:	33
A pct cm2:	14	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Clay Sand Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	PCM
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	90	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	10
Pct aq 2:	0	Pct maq 2:	25
Pct cm 2:	25	Pct pcm 2:	50
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**B6
NNW
1/4 - 1/2 Mile
Higher**

MI WELLS MI20058699

Wellid:	21000004735	Import id:	Not Reported
County:	Delta	Township:	Baldwin
Town range:	40N 23W	Section:	18
Owner name:	MARC NAULT		
Well addr:	6397 S. 2ND ST		
Well depth:	204		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2283
Const date:	2002-11-22 00:00:00.000	Case type:	Steel
Case dia:	6		
Case depth:	71		
Screen frm:	0		
Screen to:	0		
Swl:	20		
Test depth:	190		
Test hours:	2		
Test rate:	6	Test methd:	Air
Grouted:	1	Pmp cpcity:	0
Latitude:	45.77772648		
Longitude:	-87.06893983		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	Not Reported	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	597	Elev dif:	597
Elev miv:	0	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	4
Pct aq d:	11	Pct aq r:	0
Pct maq:	66	Pct maq d:	0
Pct maq r:	100	Pct cm:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	0	Pct cm r:	0
Pct pcm:	22	Pct pcm d:	63
Pct pcm r:	0	Pct na:	9
Pct na d:	26	Pct na r:	0
Pct flag:	Not Reported	Rock top:	70
D r type:	AQ / MAQ	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	10	Pct na 1:	90
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	N	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

7
NW
1/2 - 1 Mile
Higher
MI WELLS **MI20058798**

Wellid:	21000004984	Import id:	Not Reported
County:	Delta	Township:	Baldwin
Town range:	40N 23W	Section:	8
Owner name:	DAN AND CAROL HUPY		
Well addr:	6364 NORTH 3RD ST		
Well depth:	349		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	575
Const date:	2003-12-01 00:00:00.000	Case type:	Steel
Case dia:	6		
Case depth:	83		
Screen frm:	0		
Screen to:	0		
Swl:	5		
Test depth:	349		
Test hours:	.25		
Test rate:	100	Test methd:	Air
Grouted:	1	Pmp cpcity:	0
Latitude:	45.77868488		
Longitude:	-87.07302377		
Methd coll:	Address Matching-House Number		
Elevation:	623		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	604	Elev dif:	19
Elev miv:	623	Aq code:	Rock Well
Aq flag:	Not Reported		
Pct aq d:	63	Pct aq:	14
Pct maq:	51	Pct aq r:	3
Pct maq r:	62	Pct maq d:	0
Pct cm d:	0	Pct cm:	14
Pct pcm:	7	Pct cm r:	17
Pct pcm r:	0	Pct pcm d:	37
Pct na d:	0	Pct na:	0
Pct flag:	Not Reported	Pct na r:	0
D r type:	Not Reported	Rock top:	63
A thicknes:	0	Spc cpcity:	0
A pct maq:	0	A pct aq:	0
A pct cm:	0	A pct pcm:	0
A thickns2:	0	A pct na:	0
A pct maq2:	0	A pct aq2:	0
A pct cm2:	0	A pct pcm2:	0
A hit swl:	F	A pct na2:	0
A hit rock:	F	A hit top:	F
A sc lmod1:	Not Reported	A sc lith1:	Not Reported
A sc lpct1:	0	A sc lmaq1:	Not Reported
A sc lmod2:	Not Reported	A sc lith2:	Not Reported
A sc lpct2:	0	A sc lmaq2:	Not Reported
Pct maq 1:	0	Pct aq 1:	100
Pct pcm 1:	0	Pct cm 1:	0
		Pct na 1:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	N	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**C8
NNW
1/2 - 1 Mile
Higher**

MI WELLS MI20054937

Wellid:	21000000693	Import id:	21392218005
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	LIBERTY RICHARD		
Well addr:	6458 N. 1ST ST.		
Well depth:	53		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1725
Const date:	1978-07-27 00:00:00.000	Case type:	Unknown
Case dia:	5		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	52		
Screen frm:	0		
Screen to:	0		
Swl:	3		
Test depth:	10		
Test hours:	1		
Test rate:	30	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7805838549		
Longitude:	-87.069178443		
Methd coll:	Interpolation-Map		
Elevation:	593.8		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	594	Elev dif:	0
Elev miv:	594	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	57
Pct aq d:	59	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	11
Pct cm d:	12	Pct cm r:	0
Pct pcm:	28	Pct pcm d:	29
Pct pcm r:	0	Pct na:	4
Pct na d:	0	Pct na r:	100
Pct flag:	Not Reported	Rock top:	51
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	50
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	32.58245		
Vert Conduct:	.00476		
T2:	1010.056		
D50plek:	54.44986		

**C9
NNW
1/2 - 1 Mile
Higher**

MI WELLS MI20054935

Wellid:	21000000691	Import id:	21392218003
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	CARMODY TOM		
Well addr:	6480 N. 1ST ST.		
Well depth:	45		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	586
Const date:	1978-04-20 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	43		
Screen frm:	0		
Screen to:	0		
Swl:	12		
Test depth:	18		
Test hours:	1		
Test rate:	24	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.780817504		
Longitude:	-87.068687412		
Methd coll:	Interpolation-Map		
Elevation:	590.5		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	590	Elev dif:	1
Elev miv:	591	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	40
Pct aq d:	42	Pct aq r:	0
Pct maq:	4	Pct maq d:	0
Pct maq r:	100	Pct cm:	56

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	58	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	43
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	90
Pct maq 1:	0	Pct cm 1:	10
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.00033		
Vert Conduct:	.00013		
T2:	.0077		
D50plek:	.00083		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

D10
SW
1/2 - 1 Mile
Higher

FED USGS USGS2357085

Agency cd:	USGS	Site no:	454556087042801
Site name:	39N 22W 19BBD 01	EDR Site id:	USGS2357085
Latitude:	454556	Dec lat:	45.76552369
Longitude:	0870428	Coor meth:	M
Dec lon:	-87.07458056	Latlong datum:	NAD27
Coor accr:	F	District:	26
Dec latlong datum:	NAD83	County:	041
State:	26	Land net:	S19T39NR22WM
Country:	US	Map scale:	Not Reported
Location map:	Not Reported		
Altitude:	625		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	10		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	TacooshWhitefish. Michigan. Area = 656 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19410101
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	AU TRAIN FORMATION		
Well depth:	775	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1941-06-15
Water quality data end date:	1941-06-15	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

D11
SW
1/2 - 1 Mile
Higher

MI WELLS MI20054947

Wellid:	21000000719	Import id:	21392219311
County:	Delta	Township:	Escanaba
Town range:	40N 22W	Section:	19
Owner name:	CITY OF ESCANABA		
Well addr:	ESCANABA WELL #3		
Well depth:	774.6		
Well type:	Type I public		
Wssn:	2170		
Well num:	ESCANABA WELL #3	Driller id:	0
Const date:	Not Reported	Case type:	Unknown
Case dia:	20		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	85		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7651800096		
Longitude:	-87.0752566021		
Methd coll:	Interpolation-Map		
Elevation:	614		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	623	Elev dif:	9
Elev miv:	614	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	56
Pct aq d:	100	Pct aq r:	50
Pct maq:	31	Pct maq d:	0
Pct maq r:	35	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	84
D r type:	AQ / AQ	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	N	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**12
WNW
1/2 - 1 Mile
Higher**

MI WELLS MI20054941

Wellid:	21000000697	Import id:	21392218009
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	VANDERVILLE MARV		
Well addr:	6312 S. 6TH ST.		
Well depth:	50		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	586
Const date:	1978-10-23 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	46		
Screen frm:	46		
Screen to:	50		
Swl:	1		
Test depth:	10		
Test hours:	1		
Test rate:	16	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7758097562		
Longitude:	-87.0783622424		
Methd coll:	Interpolation-Map		
Elevation:	613.5		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	626	Elev dif:	13
Elev miv:	614	Aq code:	Drift Well
Aq flag:	Not Reported	Pct aq:	100
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	49	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	49	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	49		
Horiz Conduct:	100		
Vert Conduct:	100		
T2:	4900		
D50plek:	385.12139		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

E13
NNW
1/2 - 1 Mile
Higher

MI WELLS MI20054939

Wellid:	21000000695	Import id:	21392218007
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	PEARSON GUNNER		
Well addr:	Not Reported		
Well depth:	47		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1725
Const date:	1983-06-27 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	46		
Screen frm:	0		
Screen to:	0		
Swl:	9		
Test depth:	12		
Test hours:	1		
Test rate:	30	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7818448312		
Longitude:	-87.0697658823		
Methd coll:	Interpolation-Map		
Elevation:	590.5		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	594	Elev dif:	4
Elev miv:	591	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	43
Pct aq d:	43	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	55
Pct cm d:	57	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	2
Pct na d:	0	Pct na r:	100
Pct flag:	Not Reported	Rock top:	46
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.00065		
Vert Conduct:	.00022		
T2:	.017		
D50plek:	.00185		

**14
NNW
1/2 - 1 Mile
Higher**

MI WELLS MI20054934

Wellid:	21000000690	Import id:	21392218002
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	MELONI GERALD		
Well addr:	5853 3RD AVE N.		
Well depth:	54		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1730
Const date:	1986-09-29 00:00:00.000	Case type:	Unknown
Case dia:	5		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	54		
Screen frm:	0		
Screen to:	0		
Swl:	8		
Test depth:	31		
Test hours:	1		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7813343632		
Longitude:	-87.0717833024		
Methd coll:	Interpolation-Map		
Elevation:	600.4		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	600	Elev dif:	0
Elev miv:	600	Aq code:	Drift Well
Aq flag:	Not Reported	Pct aq:	74
Pct aq d:	74	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	26
Pct cm d:	26	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**E15
NNW
1/2 - 1 Mile
Higher**

MI WELLS MI20054938

Wellid:	21000000694	Import id:	21392218006
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	PEARSON GUNNER		
Well addr:	5881 3RD AVE. NORTH		
Well depth:	47		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1725
Const date:	1983-06-27 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	46		
Screen frm:	0		
Screen to:	0		
Swl:	9		
Test depth:	12		
Test hours:	1		
Test rate:	30	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7819909722		
Longitude:	-87.0701674101		
Methd coll:	Interpolation-Map		
Elevation:	590.5		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	587	Elev dif:	4
Elev miv:	591	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	43
Pct aq d:	43	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	55

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	57	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	2
Pct na d:	0	Pct na r:	100
Pct flag:	Not Reported	Rock top:	46
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.00065		
Vert Conduct:	.00022		
T2:	.017		
D50plek:	.00185		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

F16
NW
1/2 - 1 Mile
Higher

MI WELLS MI20054940

Wellid:	21000000696	Import id:	21392218008
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	STARNES ROBERT JR		
Well addr:	6393 N. 5TH ST.		
Well depth:	27		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	9999
Const date:	1984-07-28 00:00:00.000	Case type:	Unknown
Case dia:	2		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	16		
Test depth:	19		
Test hours:	1		
Test rate:	6	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7787045086		
Longitude:	-87.0768141554		
Methd coll:	Interpolation-Map		
Elevation:	629.9		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	630	Elev dif:	0
Elev miv:	630	Aq code:	Drift Well
Aq flag:	Not Reported	Pct aq:	93
Pct aq d:	93	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	7
Pct cm d:	7	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	90
Pct maq 1:	0	Pct cm 1:	10
Pct pcm 1:	0	Pct na 1:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**F17
NW
1/2 - 1 Mile
Higher**

MI WELLS MI20054943

Wellid:	21000000699	Import id:	21392218011
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	LEBRASSEUR CLAYTON		
Well addr:	5740 1ST AVE. N.		
Well depth:	80		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1675
Const date:	1985-06-01 00:00:00.000	Case type:	Unknown
Case dia:	5		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	77		
Screen frm:	77		
Screen to:	80		
Swl:	15		
Test depth:	75		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7783763033		
Longitude:	-87.0774921005		
Methd coll:	Interpolation-Map		
Elevation:	603.7		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	626	Elev dif:	22
Elev miv:	604	Aq code:	Drift Well
Aq flag:	Screen Condition (Screen Depth > 20 feet and Screen Depth <= Well Depth) AQ_CODE is set to "D"		
Pct aq d:	68	Pct aq r:	0
Pct maq:	33	Pct maq d:	25
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	74
D r type:	AQ / MAQ	Spc cpcity:	0
A thicknes:	65	A pct aq:	60
A pct maq:	40	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	65	A pct aq2:	60
A pct maq2:	40	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Limestone
A sc lmod1:	Not Reported	A sc lmaq1:	MAQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	50	Pct maq 2:	50
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	50
Pct maq 3:	50	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	65		
Horiz Conduct:	60.30862		
Vert Conduct:	.10477		
T2:	3920.06		
D50plek:	413.23769		

**F18
NW
1/2 - 1 Mile
Higher**

MI WELLS MI20054945

Wellid:	21000000701	Import id:	21392218016
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	VERMULLEN TOM		
Well addr:	5732 1ST AVE. N.		
Well depth:	84		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1675
Const date:	1985-05-22 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	80		
Screen frm:	80		
Screen to:	84		
Swl:	15		
Test depth:	75		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7783641522		
Longitude:	-87.0776957601		
Methd coll:	Interpolation-Map		
Elevation:	623.4		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	626	Elev dif:	3
Elev miv:	623	Aq code:	Drift Well
Aq flag:	Screen Condition (Screen Depth > 0 and Screen Depth <= Well Depth) AQ_CODE is set to "D"		
Pct aq d:	88	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	4

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	4	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	8
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	77
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	69	A pct aq:	86
A pct maq:	0	A pct pcm:	0
A pct cm:	4	A pct na:	10
A thickns2:	69	A pct aq2:	86
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	4	A pct na2:	10
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Unidentified Consolidated
A sc lmod1:	Not Reported	A sc lmaq1:	NA
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

19
NW
1/2 - 1 Mile
Higher

MI WELLS MI20054944

Wellid:	2100000700	Import id:	21392218015
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	KIDD JACK		
Well addr:	6420 NORTH 5TH STREET		
Well depth:	61		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1730
Const date:	1989-08-03 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	57		
Screen frm:	0		
Screen to:	0		
Swl:	30		
Test depth:	30		
Test hours:	1		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7798750863		
Longitude:	-87.0762246397		
Methd coll:	Interpolation-Map		
Elevation:	590.5		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	626	Elev dif:	36
Elev miv:	591	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	66
Pct aq d:	71	Pct aq r:	0
Pct maq:	8	Pct maq d:	0
Pct maq r:	100	Pct cm:	26
Pct cm d:	29	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	56
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	55.556		
Vert Conduct:	.00225		
T2:	2000.016		
D50plek:	120.80912		

**G20
WNW
1/2 - 1 Mile
Higher**

FRDS PWS MI2003321

PWS ID:	MI2003321	Date Deactivated:	Not Reported
Date Initiated:	7706		
PWS Name:	WELLS MOBILE US 2 & 41 WELLS 49894		

Addressee / Facility: System Owner/Responsible Party
STEVE HAMILTON
S

Facility Latitude:	45 46 37	Facility Longitude:	087 04 45
City Served:	Not Reported		
Treatment Class:	Untreated	Population:	00000025

Violations information not reported.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

**G21
 WNW
 1/2 - 1 Mile
 Higher**

MI WELLS MI20055247

Wellid:	21000001019	Import id:	21392313001
County:	Delta	Township:	Wells
Town range:	39N 23W	Section:	13
Owner name:	ENGDAHL MARY		
Well addr:	6339 S. 9TH ST.		
Well depth:	27		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	9999
Const date:	1984-07-27 00:00:00.000	Case type:	Unknown
Case dia:	2		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	13		
Test depth:	17		
Test hours:	1		
Test rate:	5	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7767139077		
Longitude:	-87.0799935895		
Methd coll:	Interpolation-Map		
Elevation:	626.6		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	626	Elev dif:	1
Elev miv:	627	Aq code:	Drift Well
Aq flag:	Not Reported	Pct aq:	100
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**G22
WNW
1/2 - 1 Mile
Higher**

MI WELLS MI20055248

Wellid:	21000001020	Import id:	21392313002
County:	Delta	Township:	Wells
Town range:	39N 23W	Section:	13
Owner name:	LANGE LEONA		
Well addr:	6337 S. 9TH ST.		
Well depth:	50		
Well type:	Public		
Wssn:	0		
Well num:	Not Reported	Driller id:	1120
Const date:	1983-05-16 00:00:00.000	Case type:	Unknown
Case dia:	5		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	46		
Screen frm:	0		
Screen to:	0		
Swl:	10		
Test depth:	30		
Test hours:	.5		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7767460003		
Longitude:	-87.0805262285		
Methd coll:	Interpolation-Map		
Elevation:	626.6		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	626	Elev dif:	1
Elev miv:	627	Aq code:	Drift Well
Aq flag:	Not Reported	Pct aq:	100
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**H23
NW
1/2 - 1 Mile
Higher**

MI WELLS MI20054946

Wellid:	21000000702	Import id:	21392218017
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	CHRISTENSEN EMIL		
Well addr:	31 MAIN ST.		
Well depth:	790		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	9999
Const date:	1949-03-01 00:00:00.000	Case type:	Unknown
Case dia:	0		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	20		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7798405289		
Longitude:	-87.0782407189		
Methd coll:	Interpolation-Map		
Elevation:	626.63		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	626	Elev dif:	1
Elev miv:	627	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	52
Pct aq d:	100	Pct aq r:	48
Pct maq:	46	Pct maq d:	0
Pct maq r:	50	Pct cm:	1

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	0	Pct cm r:	1
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	65
D r type:	AQ / MAQ	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	100		
Vert Conduct:	100		
T2:	4500		
D50plek:	326.17584		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

**H24
 NW
 1/2 - 1 Mile
 Higher**

MI WELLS MI20054933

Wellid:	21000000689	Import id:	21392218001
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	CARLSON SCOTT		
Well addr:	6411 N. 7TH ST.		
Well depth:	71		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1120
Const date:	1986-10-01 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	68		
Screen frm:	0		
Screen to:	0		
Swl:	14		
Test depth:	55		
Test hours:	1.5		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7795120566		
Longitude:	-87.0788173186		
Methd coll:	Interpolation-Map		
Elevation:	620.1		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	626	Elev dif:	6
Elev miv:	620	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	99
Pct aq d:	99	Pct aq r:	100
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	1
Pct na d:	1	Pct na r:	0
Pct flag:	Not Reported	Rock top:	67
D r type:	AQ / AQ	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	95
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	5

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	159.57447		
Vert Conduct:	124.77876		
T2:	7500		
D50plek:	553.82632		

**25
WSW
1/2 - 1 Mile
Higher**

MI WELLS MI20055373

Wellid:	21000001159	Import id:	21392324001
County:	Delta	Township:	Wells
Town range:	39N 23W	Section:	24
Owner name:	ANTHONY & CO.		
Well addr:	Not Reported		
Well depth:	361		
Well type:	Irrigation		
Wssn:	0		
Well num:	Not Reported	Driller id:	575
Const date:	1990-06-27 00:00:00.000	Case type:	Unknown
Case dia:	6		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	74		
Screen frm:	0		
Screen to:	0		
Swl:	15		
Test depth:	360		
Test hours:	.5		
Test rate:	100	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7651989562		
Longitude:	-87.0799444273		
Methd coll:	Interpolation-Map		
Elevation:	626.6		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	626	Elev dif:	1
Elev miv:	627	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	23
Pct aq d:	61	Pct aq r:	13
Pct maq:	45	Pct maq d:	0
Pct maq r:	56	Pct cm:	30
Pct cm d:	27	Pct cm r:	31
Pct pcm:	2	Pct pcm d:	12
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	74
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	25
Pct maq 3:	0	Pct cm 3:	75
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	46.298		
Vert Conduct:	.00027		
T2:	2500.092		
D50plek:	223.95432		

**26
WNW
1/2 - 1 Mile
Higher**

MI WELLS MI20055249

Wellid:	21000001021	Import id:	21392313003
County:	Delta	Township:	Wells
Town range:	39N 23W	Section:	13
Owner name:	SWISHER ANDREW		
Well addr:	5684 2ND AVE. N.		
Well depth:	70		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	586
Const date:	1981-05-23 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	67		
Screen frm:	0		
Screen to:	0		
Swl:	6		
Test depth:	15		
Test hours:	1		
Test rate:	8	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7789640231		
Longitude:	-87.0804465974		
Methd coll:	Interpolation-Map		
Elevation:	623.4		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	630	Elev dif:	7
Elev miv:	623	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	17
Pct aq d:	18	Pct aq r:	0
Pct maq:	4	Pct maq d:	0
Pct maq r:	100	Pct cm:	79

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	82	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	67
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	60
Pct maq 1:	0	Pct cm 1:	40
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.00025		
Vert Conduct:	.00012		
T2:	.0119		
D50plek:	.00246		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

H27
NW
1/2 - 1 Mile
Higher

MI WELLS MI20054942

Wellid:	21000000698	Import id:	21392218010
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	18
Owner name:	WELLS TOWNSHIP		
Well addr:	Not Reported		
Well depth:	55.5		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	586
Const date:	1972-09-22 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	53		
Screen frm:	0		
Screen to:	0		
Swl:	12		
Test depth:	45		
Test hours:	1		
Test rate:	40	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7804290746		
Longitude:	-87.0789908341		
Methd coll:	Interpolation-Map		
Elevation:	620.1		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	626		
Elev miv:	620	Elev dif:	6
Aq flag:	Not Reported	Aq code:	Rock Well
Pct aq d:	30	Pct aq:	29
Pct maq:	5	Pct aq r:	0
Pct maq r:	100	Pct maq d:	0
Pct cm d:	34	Pct cm:	32
Pct pcm:	34	Pct cm r:	0
Pct pcm r:	0	Pct pcm d:	36
Pct na d:	0	Pct na:	0
Pct flag:	Not Reported	Pct na r:	0
D r type:	Not Reported	Rock top:	53
A thicknes:	0	Spc cpcity:	0
A pct maq:	0	A pct aq:	0
A pct cm:	0	A pct pcm:	0
A thickns2:	0	A pct na:	0
A pct maq2:	0	A pct aq2:	0
A pct cm2:	0	A pct pcm2:	0
A hit swl:	F	A pct na2:	0
A hit rock:	F	A hit top:	T
A sc lmod1:	Not Reported	A sc lith1:	Not Reported
A sc lpct1:	0	A sc lmaq1:	Not Reported
A sc lmod2:	Not Reported	A sc lith2:	Not Reported
A sc lpct2:	0	A sc lmaq2:	Not Reported
Pct maq 1:	0	Pct aq 1:	80
Pct pcm 1:	20	Pct cm 1:	0
		Pct na 1:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	25	Pct pcm 2:	75
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.45471		
Vert Conduct:	.00023		
T2:	15.0054		
D50plek:	1.11003		

**28
North
1/2 - 1 Mile
Higher**

MI WELLS MI20054892

Wellid:	21000000648	Import id:	21392207010
County:	Delta	Township:	Wells
Town range:	39N 22W	Section:	7
Owner name:	CORBETT MARK		
Well addr:	6529 P RD.		
Well depth:	82		
Well type:	Public		
Wssn:	0		
Well num:	Not Reported	Driller id:	1120
Const date:	1985-03-22 00:00:00.000	Case type:	Unknown
Case dia:	5		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	43		
Screen frm:	0		
Screen to:	0		
Swl:	16		
Test depth:	30		
Test hours:	1		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	45.7857697663		
Longitude:	-87.0668184279		
Methd coll:	Interpolation-Map		
Elevation:	597.1		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	597	Elev dif:	0
Elev miv:	597	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	40
Pct aq d:	73	Pct aq r:	7
Pct maq:	46	Pct maq d:	0
Pct maq r:	93	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	13	Pct pcm d:	27
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	41
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	50
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	95.23862		
Vert Conduct:	.00191		
T2:	2000.011		
D50plek:	70.47182		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Test Type	Zip	Floor	Stop Date	Can 1 Res pCi/L	Can 1 Error	Can 2 Res pCi/L	Can 2 Error
Random	49829	0	12/19/87	NR			
Random	49829	1	1/7/88	0.6	38.0%		
Random	49829	0	12/4/87	0.7	28.9%		
Random	49829	0	12/4/87	0.7	36.2%		
Random	49829	0	2/11/88	0.8	30.4%		
Random	49829	1	11/20/87	0.9	32.6%		
Random	49829	0	5/8/87	1.0	21.0%		
Random	49829	0	1/7/88	1.1	18.9%		
Random	49829	0	12/18/87	1.1	22.2%		
Random	49829	0	11/11/87	1.2	24.1%		
Random	49829	0	4/25/87	1.2	17.3%		
Random	49829	0	12/17/87	1.2	20.5%		
Random	49829	0	2/24/88	1.3	19.6%		
Random	49829	0	12/13/87	1.4	16.6%		
Random	49829	0	12/4/87	1.6	16.6%		
Random	49829	0	2/12/88	2.2	13.9%		
Geographic	49829			NR			
Geographic	49829	0	2/17/88	0.7	35.0%		
Geographic	49829	0	3/12/88	1.3	19.4%	1.2	19.8%

State Database: MI Radon

Radon Test Results

Zip	Less than sign	Pci/L
49829		1.90
49829		2.20
49829		2.80
49829	<	0.30
49829		3.40
49829		0.90
49829		0.90
49829		1.30
49829		0.80
49829		0.50
49829		1.00
49829		1.90
49829		2.20
49829		1.20
49829		1.80
49829		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

49829		7.80
49829		5.40
49829	<	0.30
49829		2.40
49829		3.80
49829		1.40
49829		1.50
49829	<	0.30
49829		1.10
49829		1.10
49829		1.10
49829		0.60
49829		0.90
49829	<	0.30
49829		0.90
49829		0.70
49829		0.80
49829		3.60
49829		0.80
49829		0.50
49829		3.10
49829		0.70
49829	<	0.30
49829		0.80
49829		0.70
49829	<	0.30
49829		1.30
49829		0.50
49829		1.10
49829	<	0.30
49829		2.40
49829		0.50
49829		0.90
49829		1.80
49829		1.30
49829		0.60
49829		1.50
49829		1.10
49829		0.50
49829		0.50
49829		0.50
49829		2.10
49829		0.50
49829		3.60
49829	<	0.30
49829	<	0.30
49829		1.10
49829		2.40
49829		1.20
49829		0.80
49829	<	0.30
49829	<	0.30
49829		0.50
49829		0.70
49829		2.40
49829		1.20
49829		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

		0.60
49829		0.70
49829		1.00
49829		0.60
49829		1.80
49829		3.40
49829		1.70
49829		1.00
49829		0.50
49829		0.60
49829		0.80
49829		0.70
49829		1.10
49829		1.10
49829		2.00
49829		0.50
49829		0.90
49829		1.00
49829		1.70
49829		1.70
49829		2.80
49829		3.60
49829	<	0.30
49829	<	0.30
49829		0.90
49829		2.30
49829		2.20
49829		0.70
49829		0.70
49829		2.10
49829		0.90
49829		3.00
49829	<	0.30
49829		0.40
49829		0.60
49829		1.50
49829		0.60
49829	<	0.30
49829	<	0.30
49829		1.10
49829		1.00
49829		1.10
49829		1.50
49829	<	0.30
49829		1.20
49829		1.30
49829		2.80
49829	<	0.30
49829		0.80
49829		0.60
49829		4.00
49829		0.50
49829	<	0.30
49829	<	0.30
49829	<	0.30
49829	<	0.30
49829		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

49829		1.40
49829		2.00
49829		0.70
49829	<	0.30
49829		1.50
49829		0.80
49829	<	0.30
49829		0.90
49829	<	0.30
49829		1.80
49829	<	0.30
49829		0.80
49829		0.60
49829	<	0.30
49829		1.70
49829	<	0.30
49829		1.30
49829	<	0.30
49829		1.60
49829	<	0.30
49829	<	0.30
49829		1.70
49829	<	0.30
49829		0.90
49829		0.50
49829		0.50
49829	<	0.30
49829		1.20
49829		2.40
49829		0.50
49829	<	0.30
49829		1.10
49829		1.20
49829		1.40
49829		0.40
49829		2.00
49829		1.50
49829	<	0.30
49829		1.00
49829		1.80
49829		0.80
49829		1.80
49829		2.00
49829	<	0.30
49829		2.00
49829	<	0.30
49829		0.60

Federal EPA Radon Zone for DELTA County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.
- : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
- : Zone 3 indoor average level < 2 pCi/L.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

Federal Area Radon Information for Zip Code: 49829

Number of sites tested: 14

<u>Area</u>	<u>Average Activity</u>	<u>% <4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% >20 pCi/L</u>
Living Area - 1st Floor	0.750 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.264 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Department of Natural Resources

Telephone: 517-241-2254

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data

Source: Department of Environmental Quality

Telephone: 517-335-9218

OTHER STATE DATABASE INFORMATION

Michigan Oil and Gas Wells

Source: Michigan Department of Natural Resources

Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

RADON

State Database: MI Radon

Source: Department of Environmental Quality

Telephone: 517-335-9551

Radon Test Results

Michigan Radon Test Results

Source: Department of Environmental Quality

Telephone: 517-335-8037

These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

STREET AND ADDRESS INFORMATION

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APPENDIX B

Historical Topographic Maps



Escanaba Power Plant

2000 Power Plant Dr.
Escanaba, MI 49829

Inquiry Number: 2603948.4
September 30, 2009

The EDR Historical Topographic Map Report

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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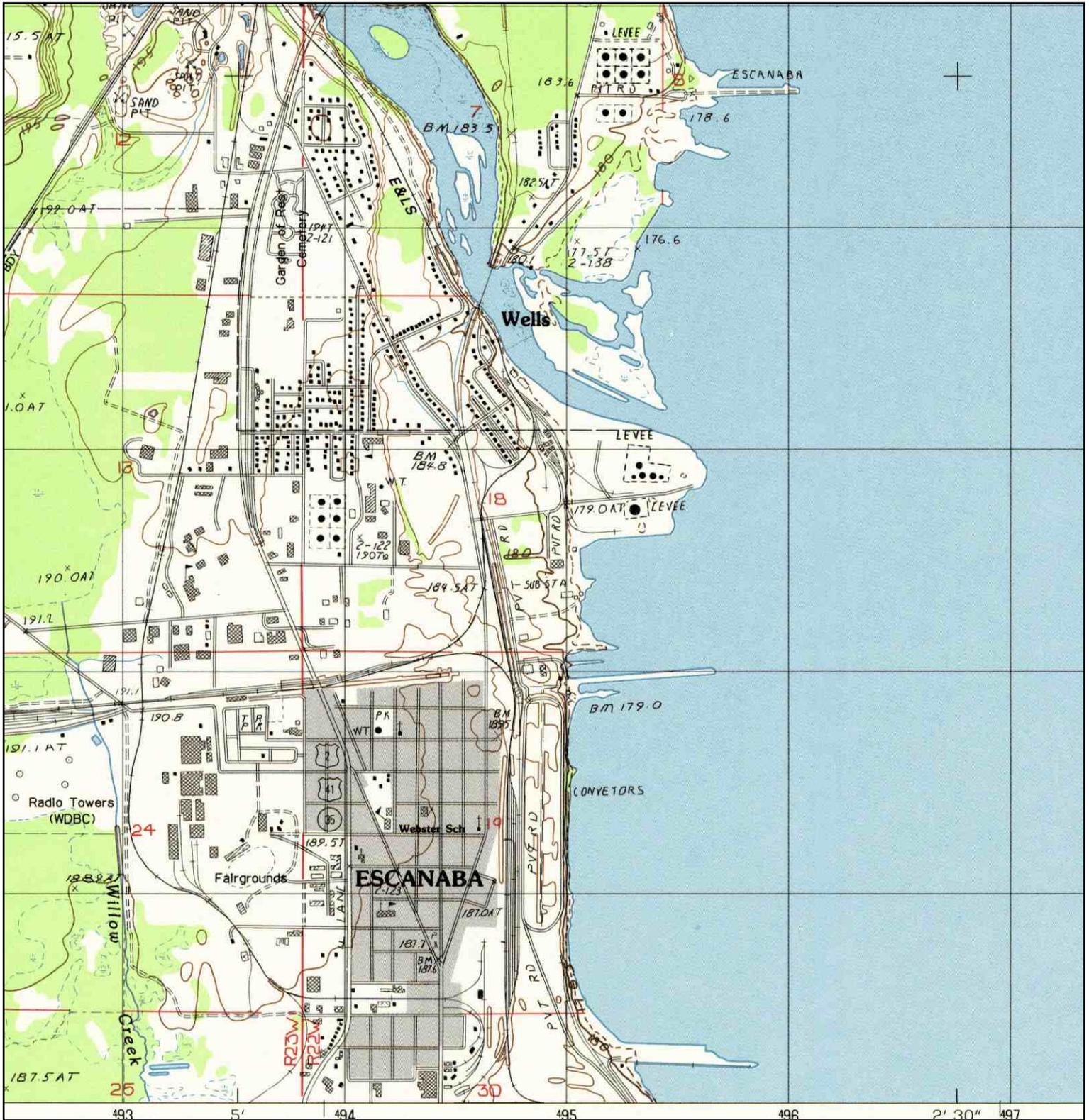
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Historical Topographic Map



	TARGET QUAD NAME: GLADSTONE MAP YEAR: 1958	SITE NAME: Escanaba Power Plant ADDRESS: 2000 Power Plant Dr. Escanaba, MI 49829 LAT/LONG: 45.772 / 87.0647	CLIENT: ECT CONTACT: Dirk Mammen INQUIRY#: 2603948.4 RESEARCH DATE: 09/30/2009
	SERIES: 15 SCALE: 1:62500		

Historical Topographic Map



<p>N ↑</p>	TARGET QUAD	SITE NAME:	Escanaba Power Plant	CLIENT:	ECT
	NAME: GLADSTONE	ADDRESS:	2000 Power Plant Dr.	CONTACT:	Dirk Mammen
	MAP YEAR: 1985		Escanaba, MI 49829	INQUIRY#:	2603948.4
	PROVISIONAL	LAT/LONG:	45.772 / 87.0647	RESEARCH DATE:	09/30/2009
	SERIES: 7.5				
	SCALE: 1:24000				

APPENDIX C

Aerial Photographs

Escanaba Power Plant

2000 Power Plant Dr.
Escanaba, MI 49829

Inquiry Number: 2603948.5

October 05, 2009

The EDR Aerial Photo Decade Package



440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDRs professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Date EDR Searched Historical Sources:

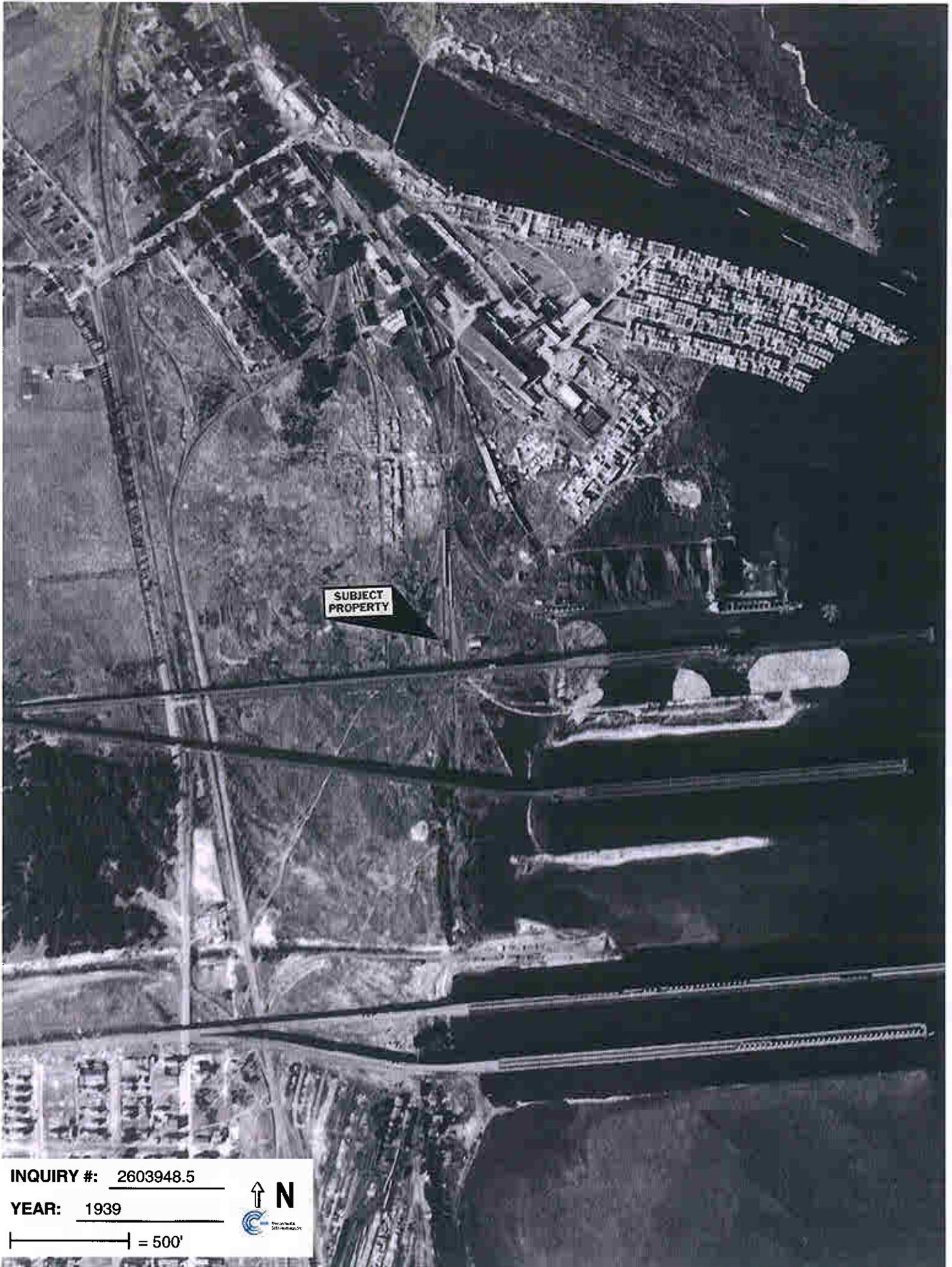
Aerial Photography October 05, 2009

Target Property:

2000 Power Plant Dr.

Escanaba, MI 49829

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1939	Aerial Photograph. Scale: 1"=500'	Flight Year: 1939	AAA
1954	Aerial Photograph. Scale: 1"=500'	Flight Year: 1954	PMA
1964	Aerial Photograph. Scale: 1"=500'	Flight Year: 1964	USFS
1981	Aerial Photograph. Scale: 1"=600'	Flight Year: 1981	NHAP
1991	Aerial Photograph. Scale: unknown	Flight Year: 1991	FSA
2005	Aerial Photograph. 1" = 604'	Flight Year: 2005	EDR



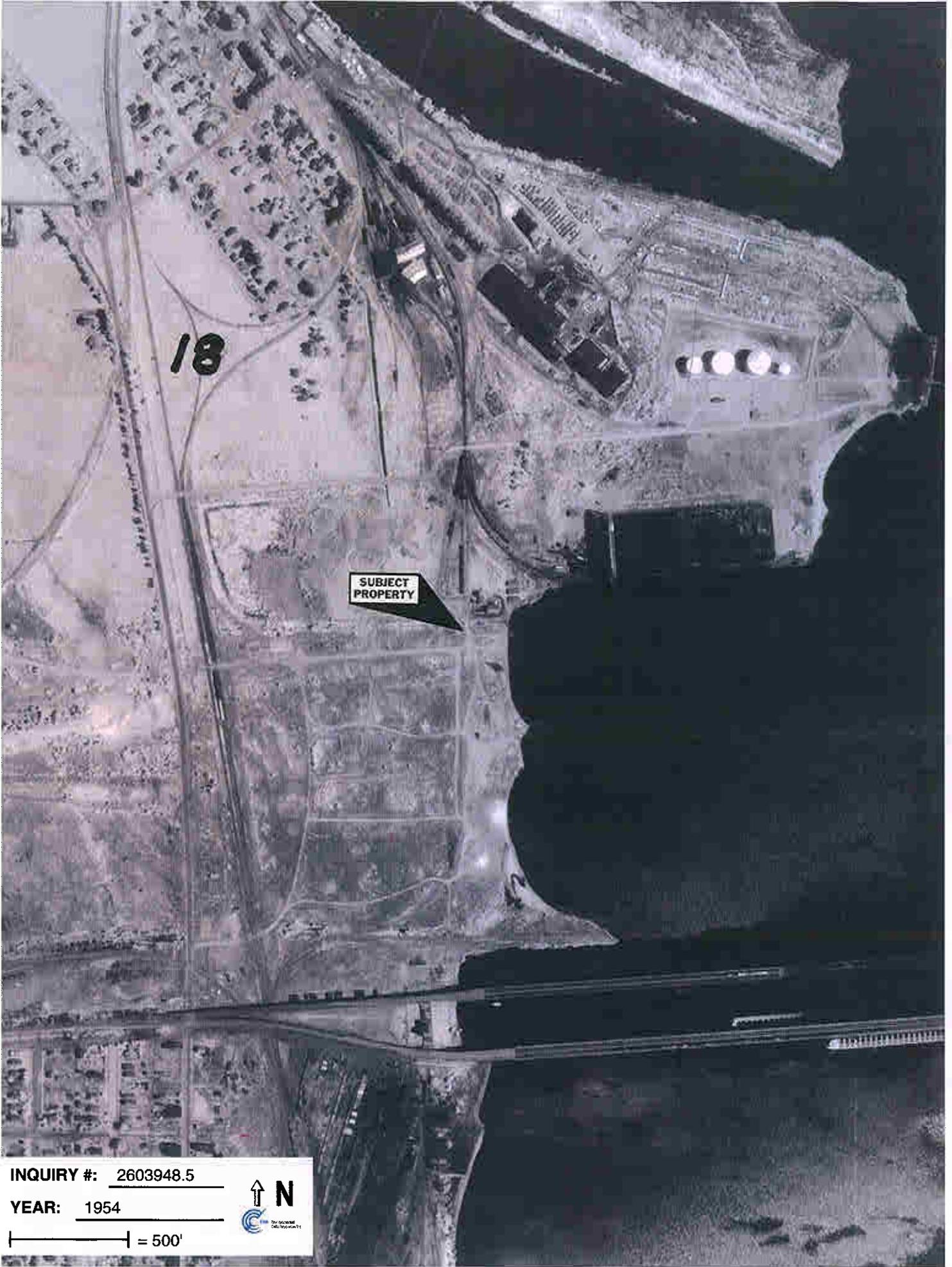
SUBJECT
PROPERTY

INQUIRY #: 2603948.5

YEAR: 1939

— = 500'





INQUIRY #: 2603948.5

YEAR: 1954

| = 500'





INQUIRY #: 2603948.5

YEAR: 1964

| = 500'





SUBJECT
PROPERTY

INQUIRY #: 2603948.5

YEAR: 1981

| = 600'



THE UNIVERSITY OF
THE STATE OF NEW YORK



INQUIRY #: 2603948.5

YEAR: 1991

— = unknown





SUBJECT
PROPERTY

INQUIRY #: 2603948.5

YEAR: 2005

— = 604'



APPENDIX D

EDR-City Directory Abstract

Escanaba Power Plant

2000 Power Plant Dr.
Escanaba, MI 49829

Inquiry Number: 2603948.6
October 28, 2009

The EDR-City Directory Abstract

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Executive Summary

Findings

Thank you for your business.
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2009 Enhancements to EDR City Directory Abstract

New for 2009, the EDR City Directory Abstract has been enhanced with additional information and features. These enhancements will make your city directory research process more efficient, flexible, and insightful than ever before. The enhancements will improve the options for selecting adjoining properties, and will speed up your review of the report.

City Directory Report. Three important enhancements have been made to the EDR City Directory Abstract:

1. *Executive Summary.* The report begins with an Executive Summary that lists the sources consulted in the preparation of the report. Where available, a parcel map is also provided within the report, showing the locations of properties researched.
2. *Page Images.* Where available, the actual page source images will be included in the Appendix, so that you can review them for information that may provide additional insight. EDR has copyright permission to include these images.
3. *Findings Listed by Location.* Another useful enhancement is that findings are now grouped by address. This will significantly reduce the time you need to review your abstracts. Findings are provided under each property address, listed in reverse chronological order and referencing the source for each entry.

Options for Selecting Adjoining Properties. Ensuring that the right adjoining property addresses are searched is one of the biggest challenges that environmental professionals face when conducting city directory historical research. EDR's new enhancements make it easier for you to meet this challenge. Now, when you place an order for the EDR City Directory Abstract, you have the following choices for determining which addresses should be researched.

1. *You Select Addresses and EDR Selects Addresses.* Use the "Add Another Address" feature to specify the addresses you want researched. Your selections will be supplemented by addresses selected by EDR researchers using our established research methods. Where available, a digital map will be shown, indicating property lines overlaid on a color aerial photo and their corresponding addresses. Simply use the address list below the map to check off which properties shown on the map you want to include. You may also select other addresses using the "Add Another Address" feature at the bottom of the list.
2. *EDR Selects Addresses.* Choose this method if you want EDR's researchers to select the addresses to be researched for you, using our established research methods.
3. *You Select Addresses.* Use this method for research based solely on the addresses you select or enter into the system.
4. *Hold City Directory Research Option.* If you choose to select your own adjoining addresses, you may pause production of your EDR City Directory Abstract report until you have had a chance to look at your other EDR reports and sources. Sources for property addresses include: your Certified Sanborn Map Report may show you the location of property addresses; the new EDR Property Tax Map Report may show the location of property addresses; and your field research can supplement these sources with additional address information. To use this capability, simply click "Hold City Directory research" box under "Other Options" at the bottom of the page. Once you have determined what addresses you want researched, go to your EDR Order Status page, select the EDR City Directory Abstract, and enter the addresses and submit for production.

Questions? Contact your EDR representative at 800-352-0050. For more information about all of EDR's 2009 report and service enhancements, visit www.edrnet.com/2009enhancements

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
2009	Polk's City Directory	-	-	-	-
2005	Polk's City Directory	-	-	-	-
2000	Polk's City Directory	-	-	-	-
1996	Polk's City Directory	X	X	X	-
1991	Polk's City Directory	X	X	X	-
1986	Polk's City Directory	X	X	X	-
1981	Polk's City Directory	-	-	-	-
1976	Polk's City Directory	-	-	-	-
1971	Polk's City Directory	-	-	-	-
1966	Polk's City Directory	-	-	-	-
1961	Polk's City Directory	-	-	-	-
1956	Polk's City Directory	-	-	-	-
1948	Polk's City Directory	-	-	-	-
1929	Polk's City Directory	-	-	-	-
1924	Polk's City Directory	-	-	-	-
1920	Polk's City Directory	-	-	-	-
1912	Polk's City Directory	-	-	-	-
1906	Polk's City Directory	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

2000 Power Plant Dr.
Escanaba, MI 49829

FINDINGS DETAIL

Target Property research detail.

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1996	Upper Peninsula Power Co. - Escanaba Generating Sta.	Polk's City Directory
1991	Upper Peninsula Power Co. - Escanaba Generating Sta.	Polk's City Directory
1986	Gallagher Marine Construction Co. T.D. Vinette Co. Upper Peninsula Power Co. - Escanaba Generating Sta.	Polk's City Directory Polk's City Directory Polk's City Directory

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

Power Plant Dr.

Power Plant Dr.

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1996	-No Other Addresses Listed on Power Plant Dr.	Polk's City Directory
1991	-No Other Addresses Listed on Power Plant Dr.	Polk's City Directory
1986	-No Other Addresses Listed on Power Plant Dr.	Polk's City Directory

FINDINGS

STREET NOT LISTED IN RESEARCH SOURCE

The following Streets were researched for this report, and the Streets were not listed in the research source.

Street Researched

Power Plant Dr.

Street Not Listed in Research Source

2009, 2005, 2000, 1981, 1976, 1971, 1966, 1961, 1956, 1948, 1929, 1924, 1920, 1912, 1906

APPENDIX E

Sanborn Fire Insurance Maps



Escanaba Power Plant

2000 Power Plant Dr.
Escanaba, MI 49829

Inquiry Number: 2603948.3
September 30, 2009

Certified Sanborn® Map Report

Certified Sanborn® Map Report

9/30/09

Site Name:

Escanaba Power Plant
2000 Power Plant Dr.
Escanaba, MI 49829

Client Name:

ECT
44315 North Groesbeck HWY
Clinton Township, MI 48036

EDR Inquiry # 2603948.3

Contact: Dirk Mammen



The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by ECT were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Escanaba Power Plant
Address: 2000 Power Plant Dr.
City, State, Zip: Escanaba, MI 49829
Cross Street:
P.O. # NA
Project: NA
Certification # 3007-49FE-AC60



Sanborn® Library search results
Certification # 3007-49FE-AC60

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

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APPENDIX F

Site Photographs



Entrance to Power Plant property from the north.



Typical view of main Power Plant facility.



Typical view of Power Plant main facility.



Typical view of Power Plant main facility.



S to N along waterfront edge, including discharge water pond.



Discharge pond and absorbent boom along east edge of property.



Power Plant facility from the South.



Power Plant facility and stacks from the east.



Water intake building along NE edge of property.



View from S to N along water intake building and east edge of property.



Typical conduit lines, with gravel base.



SW corner of Power Plant facility, storage room.



Typical view of substation area, to the SW of main plant facility.



Transformer and other electrical equipment within substation area.



Electrical equipment located within substation area.



Conduit lines located between structures.



Aboveground storage tank and earthen berm containment system.



Substation area.



Furnace area.



Electrical panels.



Secondary containment of liquid chemical materials.



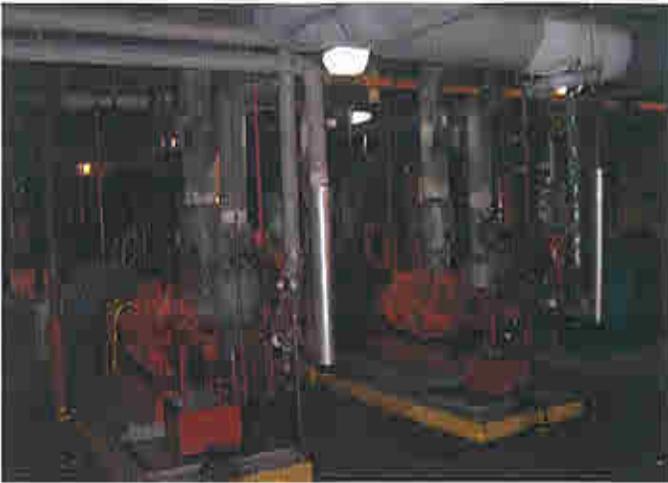
Maintenance area and storage.



Typical interior view.



Overspill containment pallets for liquid chemical storage.



Motor units for process.



Overspill containment units.



Concrete containment or exterior AST.



Turbine units.



Asbestos containing pipe wrap materials.



Interior chemical storage in curbed containment room.



Interior maintenance and equipment repair room.



Self contained mineral spirits cleaning unit.



View of former asphalt plant area and abandoned building, NE corner of property.



View from N to S of former asphalt area.



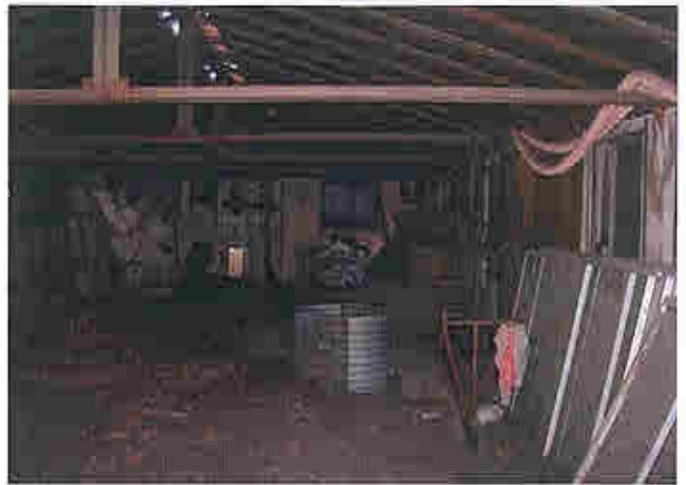
Abandoned AST in former asphalt area.



Miscellaneous debris storage within abandoned building (tires).



Various areas of abandoned metal debris.



Debris storage within abandoned sheds located along NE corner of property.



Debris storage in abandoned sheds located along NE corner of property.



Utility pole lay down storage area located along N side of property.



Old AST cradle located along S side of property, with adjacent boat yard facility.



Adjacent boat yard facility to the South.



View across S side of property and adjacent boat yard facility.



Adjacent boat yard metal storage buildings to the South.



View of municipal storage sheds along NW side of property.



Miscellaneous material and debris storage along storage sheds.



Storage shed area, NW corner.



Typical wooded area to the NW and W, some metal debris.



East edge of property along NE corner, including adjacent boat dock.



View to the NE of adjacent dock and coal storage area.



Typical wooded area to the NW and W.



Typical view of the Western wooded acreage.



Stone separation and transportation area along the NW corner of property.



View to the W from the Power Plant facility of undeveloped and wooded acreage areas.

APPENDIX G

Resumes

Education

J.D., Law—Wayne State University, 1996
B.S., Geological Sciences—
Michigan State University, 1984

Registrations

State Bar of Michigan (P51219)
OSHA 40-hour and 8-hour refresher HAZWOPER training
Hazardous Waste Operations Supervisors and Managers Certificate
Sanitary Landfill Design Certificate
Asbestos Awareness Program Certificate No. 189-2

Affiliations

Commissioner—Oakland Township Parks & Recreation
Member—City of Rochester
Brownfield Redevelopment Authority
Michigan Association of Environmental Professionals
American Bar Association
Michigan Bar Association
Oakland County Bar Association

Areas of Specialization

Geology, Hydrogeology, Soils Contamination Assessments, Groundwater Monitoring and Contaminant Assessments, Environmental Site Assessments, Property Acquisition/Transfer Environmental Management and Risk Management, Underground Storage Tank Closure and Remediation Investigations, Project Management

Project Director; Environmental Site Assessments (ESAs), Various Clients—Coordinated, managed, or performed over 1,200 ESAs for lending institutions, law firms, private industry, municipal organizations, construction developers, and private interests. Sites include vacant properties, manufacturing and industrial facilities, small to very large commercial buildings, landfill and dump sites, municipal garages, and other underground storage tank (UST) and hazardous material sites. Sites located throughout the United States, primarily the Midwest, Upper Midwest, and Rocky Mountain regions.

Project Scientist; 10 Mile Drain PCB Investigation & Remediation, Macomb County Public Works Office—Completed detailed environmental assessment activity and in-depth historical research investigation in an effort to evaluate historical and current sources of PCB materials impacting the drain system. Performed an investigation of the 10 Mile Drain storm sewer to characterize the nature and extent of PCB contamination. The investigation consisted of soil boring placement and soil sample collection in areas immediately adjacent to the drain system, as well as stormwater and sediment monitoring within the sewer, a corridor survey (aerial photograph, interviews of local residents and historic land use review) to determine the potential source of the contamination, and an inspection of the sewer condition using closed circuit televising.

Project Scientist; Environmental Services, Wayne County Airport Authority—Performed, coordinated, and/or managed numerous environmental assessment or environmental compliance projects at both Detroit Metro Airport and Willow Run Airport, including UST removal, spill response, assessment or compliance evaluations and miscellaneous drum identification and removal actions. Performed remediation activity associated with surface fuel spills and subsurface release during new terminal construction activity resulting from historical hydrant fuel system.

Project Manager; Bulk Oil Terminal Release and Site Reconstruction, Delta Fuels—Managed all environmental assessment, remediation, and compliance issues resulting from a 100,000-gallon gasoline overfill event, impacting both onsite and offsite area in Toledo, Ohio. Site involved federal and state regulatory action. The secondary containment system was replaced with approximately 3,000 linear feet of HDPE liner. Managed and designed the construction and permitting for an onsite water treatment and remediation system. Provided regulatory compliance assistance, including the preparation and implementation of treatment, storage, and disposal facility closure plan; spill prevention, control, and countermeasure plan; and facility response plan.

Project Scientist; Due Diligence Manager, ITC (International Transmission)—Managed and completed all land acquisition projects related to electric utility expansion throughout the Midwest (Michigan, Iowa, Kansas, and Minnesota), including Phase I/II ESAs, BEAs, and TSPs on a variety of sites, both active electrical utility sites and undeveloped acreage. Included corridor study assessment activity, detailed title work review, and significant area wide impact investigations.

Project Scientist; Manufactured Gas Plant (MGP) Site Assessment and Risk Evaluation, Michigan Consolidated Gas Company—Performed site investigations, exposure evaluations, and risk assessments at former MGPs as part of a complex effort to implement a plan for the investigation of 23 sites located throughout Michigan. The plan is designed to meet the company's obligations under Michigan's requirements to diligently pursue response activi-

ties. Conducted records searches and other information gathering; prepared site summary reports; prioritized all 23 for further investigation; provided oversight of a Geoprobe investigation at 9 of the 23 sites; and formulated a plan, including a budget and schedule, for response activities at all 23 sites.

Project Director; Large-Scale Area Wide Phase I ESAs, Various Clients— Completed six large-scale area wide Phase I ESAs on specific residential housing redevelopment areas in the City of Detroit, Michigan. Each area wide assessment involved the potential acquisition of from 80 to 230 vacated residential lots within certain redevelopment neighborhoods. The area wide assessment approach involved the historical and regulatory evaluation of all properties located within a specific grid or block area, followed by an individual assessment of each acquisition parcel in relation to the environmental conditions of the area. A review of all available historical documentation was performed, including Sanborn fire insurance maps, historical aerial photographs, street index directories, FEMA flood zone maps, zoning documentation, building, assessment, and fire department records, and specific title documentation. Assisted with parcel identification and quality of title issues, with all parcels having been or slated to be reverted to City of Detroit ownership. Compiled comprehensive assessment reports for each assessment area, including detailed maps and parcel summaries. Prepared all applicable Michigan State Housing Development Authority (MSHDA) applications and environmental documentation for submittal. The projects were completed on time to conform to MSHDA deadlines and within budget.

Project Director/Manager; Phase II ESA Activity, Various Clients— Coordinated, managed, or performed over 600 Phase II ESAs onsite throughout the Midwest, including industrial and commercial properties, residential properties, and rails-to-trails corridors. Sites ranged in size from very small lots to large acreage developments. Chemical impacts evaluated include petroleum products, solvents and various DNAPLs, PCBs, and various metals. Completed baseline environmental assessments on numerous Michigan sites.

Project Manager; Site Characterization and Investigation, Remedial Investigation/Feasibility Study (RI/FS); Confidential Client— Managed and performed site investigation, RI/FS, and remedial design activities on a former solvent recycling and treatment, storage and disposal RCRA facility. Soil and groundwater impacts evaluated, with onsite and offsite risk assessment.

Project Director; Site Characterization and Investigation, Remediation and Site Closure; Ryder Truck Rental, Inc.— Managed or performed all phases of site investigation activities for petroleum-related contamination at numerous Midwest locations. Activities included feasibility analysis, and remedial design and implementation primarily pertaining to onsite and offsite low temperature thermal desorption and groundwater treatment.

Project Manager; Landfill Condition and Design Assessment, Allstate Insurance Company— Performed a landfill inspection in Weld County, Colorado, regarding condition, operations, and management and future cell design review for new bond issue considerations and liability limitations.

Project Manager; Site Assessment and Property Transfer Management— Performed all phases of site assessment activities on site in Detroit, Michigan, with numerous historical industrial uses in order to facilitate plant demolition, remediation, and redevelopment. Strong legal and financial influence and regulatory agency involvement, including covenant-not-to-sue negotiations and property risk management settlements.

Project Manager; Site Investigation, Remedial Design, and Risk Management; Bulk Oil Storage Facility—Performed site assessment activities of a large bulk oil storage terminal in Michigan with significant legal and financial institution involvement. Provided remedial design alternatives, with an emphasis on *in situ* bioremediation enhanced groundwater and soil treatment using a variety of horizontal boring techniques and reapplication of the bio-enhanced medium.

Project Manager; ESA, Confidential Client—Performed an ESA on over 4,000 acres of land for future development in eastern Colorado. Assessment included site investigation, historical review, regulatory review, and recommendations.

Project Manager; Surface Water and River Sediment Investigation-Detroit River, Confidential Client—Performed all phases of field and reporting investigation for a section of river reportedly impacted by numerous chemical contaminants from nearby and upstream industries. Investigation included sample location plan, sediment and water collection and analysis, data interpretation, and environmental impact and assessment recommendations.

Project Manager; Hydrocarbon Remediation Investigation, Kubat Equipment and Service Company—Performed functions related to UST removal, closure soil sampling, contaminant assessment and reporting, monitoring well placement, hydrogeologic investigation, and remedial action design and implementation for large county UST facility in Jefferson County, Colorado.

Expert Witness; Soil and Groundwater Conditions, Risk Management; Confidential Client—Provided expert testimony relating to subsurface petroleum and solvent contamination impacts on neighboring properties, allegedly resulting from a number of potential offsite and former onsite sources.

Expert Witness; Groundwater Conditions, D & T Construction Company—Provided expert testimony and consulting regarding alleged groundwater mounding and depletion impacts during construction activities, specifically related to the diminished capability of nearby drinking water wells.

Quality Control Technician; Landfill Construction at Various Disposal Sites—Provided onsite quality control activities during the construction of landfill lines and berms on numerous disposal facilities throughout southeast Michigan and northern Ohio.

Project Manager; Site Investigations and Regulatory Compliance Assessments, Confidential Client—Performed numerous site investigations and regulatory compliance assessments of dairy product storage and production facilities in Wisconsin, with particular emphasis on corporate operations transfer, worker safety issues, and waste water treatment difficulties.

Project Manager; Site Characterization and Remediation Investigation and Design, Confidential Client—Performed site characterization and remedial investigation on property prior to high-rise tower construction in southeast Michigan. Completed soil and groundwater sampling for past contamination resulting from large volumes of TCE (trichloroethylene) spilling and leaking. Prepared remedial design of contaminated groundwater collection and treatment system.

Project Manager; UST Site Characterization Investigations, Shell Oil Company—Performed site characterization studies at numerous Shell service station facilities in southeast Michigan, including utility locate diagrams, soil borings and sampling, field analysis, and reporting and recommendations.

Project Manager; Hydrogeologic Investigations, Mobil Oil Company—Performed hydrogeologic investigations of Mobil facilities in southeast Michigan related to groundwater contamination resulting from UST impairment. Investigations included monitoring well placement, groundwater characteristic determination, water sampling and analysis, reporting, and recommendations.

Project Manager; UST Closure and Contaminant Assessments, Venta and Conoca Oil Companies—Performed numerous site closure assessments in Colorado, including soil boring studies, hydrogeologic investigations, remedial design and remediation, soil venting system design and placement, regulatory agency interfacing, reporting, and recommendations.

Presentations

Mammen, D.S. 1990. Environmental Issues, Financial Risks, and Lender Liability. Presented at FDIC (Federal Deposit Insurance Corporation), Denver, Colorado; September 1990.

Mammen, D.S. 1990. Environmental Site Assessments. Presented at National Association of Industrial and Office Parks (NAIOP - Michigan); March 1990.

Mammen, D.S. and Mosher, R.E. 1989. Environmental Impact of Road Salt Usage as a Winter Street De-Icer - Case Study: Buckhorn Lake, Orion Township, Oakland County, MI. Presented and Published at Conference and Exhibition on Pollution Control Technologies, Detroit, Michigan; October 27, 1989.

Education

M.S., Hazardous Waste Management—Wayne State University, 2000
B.S., Environmental Policy and Behavior—University of Michigan, 1994

Registrations

Certified Hazardous Materials Manager, 1998
ISO 14001 certification
OSHA 40-hour hazardous waste site worker training

Areas of Specialization

Regulatory Compliance with Environmental and Health and Safety Regulations; Due Diligence Environmental Assessments; Waste Minimization/Pollution Prevention; and Asbestos, Lead-Based Paint, and Radon Assessments

Project Manager; Health and Safety Program Development, Confidential Client—Served as a Facilitator on the safety committee for Michigan facilities of an international automotive supplier. Facilitator responsibilities included developing environmental and health and safety programs, directing committee members in developing and implementing environmental and health and safety programs, and providing regulatory guidance.

Project Manager; Environmental, Health, and Safety (EHS) Audits; Multiple Clients—Completed regulatory compliance audits at facilities in Michigan and Ohio with respect to federal, state, and local EHS regulations which included conducting site reconnaissance, interviewing site personnel and other interested parties, reviewing applicable site documentation and regulations, and preparing reports. The majority of the EHS audits were completed for industrial facilities that include manufacturing facilities for automotive suppliers, research and development operations, and warehouses.

Project Manager; Phase I Due Diligence Projects, Multiple Clients—Completed over 500 Phase I environmental site assessments (ESAs) nationwide, which included conducting site reconnaissance, interviewing site personnel and other interested parties, reviewing historical information, and preparing reports. Approximately 50 percent of the ESAs were completed for industrial sites including, but not limited to, concrete manufacturing and raw materials quarries, oil refineries, manufacturing facilities (e.g., foundry, stamping, fabrication, tool and die operations), cattle slaughter and rendering facilities, and warehouses. Approximately 35 percent of the ESAs were completed for commercial sites including, but not limited to, automobile dealerships and service centers, hospitals and other medical facilities, funeral homes, retail operations, and offices. Approximately 15 percent of the ESAs were completed for undeveloped residential sites including single-family homes and apartment complexes.

When Phase II subsurface investigation is warranted at a site, the work conducted and an evaluation of site data is included in the Phase I ESA report. Baseline environmental assessments (BEAs) have been completed for eligible Michigan sites that met the definition of a “facility.” Limited due care plans were prepared for sites for which BEAs were completed.

Project Manager; Asbestos Surveys, Multiple Clients—Conducted both comprehensive (entire properties) and limited (portions of properties) asbestos surveys in Michigan and Ohio which included identifying suspect asbestos-containing materials (ACM), collecting and submitting samples of said suspect ACM for laboratory analysis, interpreting analytical results, and preparing reports. Asbestos surveys have been completed as components of Phase I ESAs, pre-demolition surveys, and as stand-alone documents for use by site personnel. Sites for which asbestos surveys have been completed include residential properties (single-family homes and apartment complexes), commercial properties (e.g., hotels, offices), and industrial properties (e.g., warehouses, manufacturing facilities).

Project Manager; Asbestos Operations and Management Plans, Confidential Client—Prepared written asbestos operations and management (O&M) plans for apartment complexes in Michigan utilizing information obtained from previously conducted asbestos surveys.

Project Manager; Lead-Based Paint Surveys, Multiple Clients—Conducted both comprehensive (entire properties) and limited (portions of

properties) lead-based paint surveys in Michigan and Ohio which included identifying suspect lead-based paint, either collecting and submitting samples of said paint chips for laboratory analysis or supervising a licensed contractor perform XRF analysis, interpreting analytical results, and preparing reports. Lead-based paint surveys have been completed as components of Phase I ESAs or pre-demolition surveys. Sites for which asbestos surveys have been completed include residential properties (apartment complexes) and industrial properties (e.g., warehouses, manufacturing facilities).

Project Manager; Lead-Based Paint Operations and Management Plans, Confidential Client—Prepared written lead-based paint O&M plans for apartment complexes in Michigan utilizing information obtained from previously conducted lead-based paint surveys.

Project Manager; Radon Surveys, Multiple Clients—Conducted radon surveys in Michigan and Ohio which included placing indoor air quality radon sampling kits in appropriate locations, instructing site personnel to avoid sampling kits and to leave the areas where the kits were placed undisturbed, submitting radon sampling kits for laboratory analysis, interpreting analytical results, and preparing reports. Radon surveys have been completed as a component of Phase I ESAs at residential properties (single-family homes and apartment complexes), commercial properties (e.g., semi-trailer showrooms), and industrial properties (e.g., warehouses, manufacturing facilities).

Project Manager; Lead in Drinking Water Sampling, Multiple Clients—Conducted samples of drinking water and submitted the said samples for laboratory analysis, interpreted analytical results, and prepared reports. Lead in drinking water sampling have been completed as a component of Phase I ESAs at residential properties (single-family homes and apartment complexes), commercial properties (e.g., automobile dealerships), and industrial properties (e.g., warehouses, manufacturing facilities) in Michigan and Ohio.

Project Manager; Waste Minimization and Pollution Prevention Assessments, United States Postal Service (USPS)—Responsible for waste minimization and pollution prevention assessments at USPS facilities throughout Michigan which included performing site reconnaissance, identifying Resource Conservation and Recovery Act (RCRA) noncompliance, conducting chemical inventories, sorting and quantifying waste streams, interviewing site personnel and other interested parties, and preparing a written report outlining findings, recommendations, and conclusions.